

THE JOURNAL
OF THE
ANTHROPOLOGICAL INSTITUTE
OF
GREAT BRITAIN AND IRELAND.

NOVEMBER 9TH, 1897.

E. W. BRABROOK, Esq., C.B., F.S.A., *President, in the Chair.*

The Minutes of the last Meeting were read and signed.

Dr. GARSON congratulated the President in the name of the Institute on the honour the Queen had conferred upon him, an honour so well deserved for his many services not only to this Institute but to many other Societies and interests.

The PRESIDENT returned sincere thanks for the kindly expression of goodwill.

The PRESIDENT thanked the Rev. Mr. Hutchinson for his book on "Marriage Customs in Many Lands."

Mr. O. M. DALTON and Mr. C. H. READ then read their paper on "Works of Art from Benin City," and Mr. W. GOWLAND described the metals used in the bronze plaques. A vote of thanks was passed to the two authors, and the President thanked Mr. Neville for various bronzes and ivories he had kindly lent for exhibition.

VOL. XXVII.

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WORKS of ART from BENIN CITY. By C. H. READ and
O. M. DALTON.

[WITH PLATES XVII-XXII.]

THE city of Benin lies about seventy-three miles from the mouth of the Formoso or Benin river. It was the capital of the kingdom of the same name, and was regarded as the political and religious metropolis of a wide area containing several provincial towns, of which Gwato, the river port, was commercially the most important. The Bini, like all the negro tribes, appear to have been pushed down from the north by the impact of more warlike peoples; but, once arrived at their present seats, the nature of the country enabled them not only to maintain themselves, but to extend their influence along the rivers and the coast to Warri, Badagry and Lagos. Though their language differs somewhat from that of the inhabitants of Yoruba and Dahomey, in manners, customs and religion these peoples must be regarded as integral parts of a single ethnological whole.¹

Benin was one of the first important negro kingdoms which became known to Europeans, and it looms large in the history of early travel. Discovered at the close of the fifteenth century, in the sixteenth and seventeenth it was styled "The great Benin," and was an important market for European commerce. It then seems to have entered upon a period of decadence, only terminated by the episodes of the present year, when the capital was overthrown and its site doomed to lie waste for ever.

Although the present orientation of Benin seems to be towards the south, it may well have had indirect relations with the north and east from very early time. On that ancient waterway the Niger, near the lower course which it lies, stand the once imperial cities of Jenné and Timbuctoo; the former the home of a race supposed to have derived its origin from Egypt, and to have maintained relations with that country; the latter the Nijni-Novgorod of North-West Africa, on which caravan routes from Morocco and Tripoli converge. And even before these empires arose, who can say what shreds and patches of Mediterranean civilization may not have drifted with the drifting peoples far into the darkness of the interior? But

¹ R. F. Burton: "Abeokuta," I., p. 222. London, 1863.

whatever the antiquity of such trade-routes may be, they emerged as great arteries of commerce when the Arabs and the Moors penetrated the Sahara to the Soudan, and sold pepper and slaves on the Mediterranean seaboard. To what extent Benin may have been affected by such traffic it is now almost impossible to determine. It is sufficient to recall the fact that at a period previous to the first European voyages, the far interior was traversed by a network of ways connecting the negro countries with the northern inland sea and with Eastern Africa, and that it contained markets frequented by merchants representative of various races and lands. The belt of states lying to the north of the Guinea Coast, Borgu and Bornou rich in horses, Sokoto and the commercial district of Haussaland, would all be possible conductors of foreign influence; and that trade flowed regularly along this line towards the east we learn from Leo Africanus, who, at the beginning of the sixteenth century descended from Morocco to Jenné and Timbuctoo, passing thence through Kano and Bornou, to a point somewhere to the east of Lake Tchad.

If we turn now to the southern side and to the Gulf of Guinea we have something more definite than conjecture to record. Dismissing as too remote for our purpose the old or disputed stories of Necho and Hanno, of the Genoese in the thirteenth century, and the Normans of Dieppe in the fourteenth, we find that the coast of Benin was first passed by two Portuguese captains¹ in the year 1470 A.D.

But though one Sequeira is said to have discovered Benin in 1472² it seems that the interior was not explored until about fifteen years later, when the first visit to Benin city was made by Alonso d'Aveiro, who is said to have brought back not only "pepper with a taile," but also an ambassador from the King of Benin to King John II of Portugal, asking that missionaries might be sent to his capital. The request is said to have been due to interested motives, and may have been immediately suggested by d'Aveiro himself, or by the King's previous knowledge of European power, derived through native trade to the Gold Coast, where Portugal had been established for some years.

This early ambassador is responsible for the story that the kings of Benin received their investiture from a powerful monarch dwelling some hundreds of leagues towards the east, and either himself called Ogané or inhabiting a city of that

¹ João de Santarém and Pedro de Escobar. Major: "Life of Prince Henry the Navigator," p. 328. London, 1868.

² Antonio Galvano: "The Discoveries of the World," Hakluyt Soc. London, 1892, p. 75.

name.¹ This monarch is reported to have sent to each new king of Benin as insignia of his office, a cross, a staff, and a cap, all of shining brass. When we remember that at this period Africa was the home of all marvels and the seat of the empire of Prester John, we shall not be surprised to learn that the Portuguese found in these statements a confirmation of their favourite geographical dream. It may well be that the ambassador's picturesque tale of inland intercourse may have an actual foundation in fact, and that relations of some kind or other did exist between the negroes of Guinea and some of the peoples of Eastern Africa.² The sequel appears to have been that a mission did go to Benin, but that it met with little success, and was withdrawn in the following reign.

Between this time and the middle of the next century, isolated adventurers may well have gone up into the interior, men perhaps in some cases possessing mechanical skill, who, like Bulfinch Lamb³ and some Portuguese craftsmen in Dahomey two centuries later, would have been highly appreciated at the native court. But it was after 1550 that the tide of commerce began to set strongly in this direction, the Portuguese having in 1536 abandoned their claims to exclusive trading rights on the Guinea coast.⁴ It was now that our own countrymen began to fit out expeditions, several of which reached Benin before Queen Elizabeth died. But the leaders of these expeditions were not literary men, and they add little to our knowledge of the place and people. The quaint description which Hakluyt gives of the voyage of Windham and Pinteado (1553) forms one of the most amusing narratives of sixteenth century travel.

The first detailed picture of Benin city was derived from Dutch sources, and published in De Bry's compilation.⁵ The narrative, illustrated by plates by Theodore De Bry, is evidently based on accounts derived from eye-witnesses, and is a fount of information freely drawn upon by other

¹ Major, *op. cit.*, p. 387, and João de Barros, *A. Asia*, Decade I, Part I, Book III, chap. 4.

² See the remarks of Mr. R. B. N. Walker, in the discussion following this paper. There are certain points about the decorative art of Abyssinia which resemble the art of Benin. The cross worn on the neck by some of the cast figures looks more like an Oriental than a Latin cross. The custom of circumcision also appears to have been carried out in a similar way in both countries.

³ W. Smith: "New Voyage to Guinea," p. 176. London, 1744.

⁴ Anderson: "History of Commerce," vol. i, p. 365.

⁵ "India Orientalis," Part VI. Published in German, Latin, and French at Frankfort-on-the-Main about 1600 A.D. by the brothers de Bry. The original Dutch account of Benin is by Peter de Marees. The German and Latin translations are by Artus, of Dantzig. In giving references to the "India Orientalis," de Bry's name is used for the sake of convenience.

writers, often without acknowledgment. The description of Van Nyendael, another Dutchman, appeared about a hundred years later to share a similar fate. Van Nyendael reached Benin in 1702, and his account is published at length in Bosman's "Description of Guinea." Other accounts by Dapper, Villault, Barbot and others are less fruitful in original observation; and it is not until the beginning of our own century, when the glories of Benin had long been on the wane, that we get narratives which furnish us with many details connected with works of native art. Of these, that of Lieutenant King¹ in 1820, that of Captain Fawckner in 1825,² and that of Messrs. Moffat and Smith in 1838³ are especially deserving of notice. It may be mentioned that Belzoni had ere this met with his death at Gwato, and that Sir Richard Burton,⁴ who has left an exceedingly valuable description, was at Benin in 1862. Coming to more recent years, we find that the city was visited in the present decade by an official of the Niger Company, and by a member of a private firm; while Captain Gallwey of the East Lancashire Regiment went up on a mission in 1892. The story of the final expedition needs no recapitulation here.

In reviewing the history of European exploration, we must assign a pre-eminent position to the Portuguese. Not only did they precede the English, the Dutch, and the French, but here, as elsewhere, they seem to have possessed a peculiar power of adapting themselves to the conditions of tropical life. Even their slave traffic between Elmina and the districts about the Rio Forçados seems to have conduced to closer relations with the natives than those enjoyed by other European peoples, and in the sixteenth century traders appear to have settled down upon the banks of that river.⁵ The first English expedition, led to the city by a native of Portugal, found in Benin a king who had been brought up from his youth to speak the Portuguese tongue. And at the commencement of the seventeenth century, when the Portuguese were beginning to recede before their more energetic rivals on the coast, we are told that many of them retreated up the country, and, intermarrying with the natives, were able to place difficulties in the way of explorers, and largely control the inland commerce.⁶ They are said to have had chapels near their houses and to have been energetic in making proselytes. Towards the close of the same century a

¹ "Journal des Voyages," XIII, p. 313. Paris, 1822.

² "Narrative of Capt. J. Fawckner's Travels, &c.," London, 1837.

³ "Journ. R. Geog. Soc.," vol. xi, 1841, p. 190.

⁴ *Vide* "Fraser's Magazine," Feb., March, and April, 1863, "My Wanderings in West Africa," by a F.R.G.S. Also "Cornhill Magazine," 1880.

⁵ "India Orientalis," Part VI, chap. 54.

⁶ Villault in Astley's collection, ii, p. 382. London, 1745.

regular mission was established at Warri, traces of which are still believed to exist.¹ Burton, commenting on the permanent effect produced by the Portuguese, notes that even in 1862 the old men could speak a kind of Africo-Lusitanian.

According to Sir Ralph Moor's report,² Captain Boisragon's book, "The Benin Massacre," and Commander Bacon's work, "Benin; the City of Blood," Benin city was a rambling town divided into two parts by a broad avenue. On the south side of this was the king's quarter, consisting of a number of successive courts, and once much larger than our expedition found it. On the north side were the houses of the lesser chiefs and people; but the whole was in a state of decay, so that the town had become little better than a large and scattered village. The gradual process of degeneration had been marked by successive travellers, and was accelerated by the evil effects of sedition and civil war. The city had probably seen its best days before 1600, though it can hardly have ever resembled a large European capital with towers and spires—the guise in which a plate accompanying Ogilby's description presents it to our view.³ The palace had not escaped the general decay: several parts of it appear to have been disused, and in the once extensive stables no horses were to be found. Fawckner in 1825 saw three solitary horses belonging to the king which no one was bold enough to ride; and these may have been almost the last of the great numbers which the city must at one time have contained.

The houses in general had clay walls and palm-leaf roofs. If large, they had several courts, and some may have had outer verandahs.⁴ The rooms had no windows but had flat roofs with a central aperture. Under this opening there was often a tank to receive the rain-water, which was conveyed away through a hole in one corner, while in the centre was placed a fetish, such as a cone of clay or half-buried pot of water. This seems to be the foundation of the report that the Benin and Yoruban house had an atrium and impluvium after the Roman fashion. Burton goes so far as to conjecture that this style of architecture may have actually been derived from the Roman colonies of North Africa.⁵

Besides the private places of worship, which were in alcoves at the ends of the rooms, there were seven large Ju-Ju compounds not far from the palace, each two or three acres in extent, surrounded by mud walls, and with a pent roof at one

¹ "Fraser," 1863, p. 288 note.

² Blue Book, "Africa," No. 6, 1897.

³ "Africa." London, 1670. See also Dapper, ed. 1676.

⁴ De Bry, Part VI, chap. 55.

⁵ "Fraser," 1863, p. 278, and Fawckner, *op. cit.*, pp. 32 and 71.

end. Under this roof was a long altar of clay, on which stood the carved ivory tusks supported at the base by human heads of cast metal. On the altars were maces for killing victims—possibly only those connected with the royal blood, who, as in Dahomey, may have been first stunned, and not decapitated straight off like common folk.¹

It is important to note that in 1702 Van Nyendael saw in the palace eleven tusks, supposed to represent the king's gods,² and supported in this identical manner; while in 1820 Lieutenant King saw eight or ten before one of the façades, arranged on each side of the central door, and with the points turned to the wall. Tusks were found in fetish houses in several towns, as also were cast metal and wooden heads, life-sized wooden birds, and sticks surmounted by a carved hand with pointing index. The hand and arm are frequently represented on metal objects and are either cast or chased.

The palace itself had several points of interest. It seems to have had in the centre of one side a pyramidal tower 30 or 40 feet high, which is remarked by several travellers, and caused Captain Fawckner to compare the whole building to a British shot factory.³ From the top of this tower was fixed a cast metal snake, the head of which came down to the ground, while the body was as thick as that of a man. Lieutenant King was told in 1820 that this snake had been there for centuries, and this may be true, for Van Nyendael evidently saw more than one snake cast in metal on different parts of the roof. It may be noticed that where the snake occurs it is usually represented head downwards. When the city was entered this year, a similar snake was also observed on the roof of the palaver house.

Some of the rooms had transverse beams covered with metal plates ornamented with divers figures. This peculiarity had also been observed by earlier visitors, for it is mentioned by Dapper,⁴ who speaks of pillars cased in metal, "on which are engraved their victories, and which are always kept very bright." It is possible that the allusion here may be to thin plates of brass with figures executed in repoussé work, although another explanation may perhaps be suggested. Wood seems to have entered more largely into the construction of the palace than into that of ordinary houses; indeed Fawckner speaks as if the whole of one part were wooden. In the interior decoration native cloths were largely employed.

The king of Benin lived in the usual atmosphere of a West

¹ Sir R. Moor, "Report," p. 45.

² Bosman's "Deser. of Guinea," in Pinkerton, vol. xvi, p. 535.

³ *Op. cit.*, p. 83.

⁴ Ed. Amsterdam, 1686, p. 208.

African court. His title was *Obbá*, and he was an object of adoration to his subjects; on this fact his power may have largely depended.¹ Under him were the captain of war, who seems to have resided in a suburb, and possibly two or three other great chiefs, who were his principal advisers. Below these were the great body of chiefs or "homograns," from whose number the principal public officers and local governors were taken. Then came the fiadors, or brokers, and the subordinate functionaries, then the commonalty, and finally the slaves. The sign of nobility and also of office was a coral necklace placed round the recipient's neck by the king himself, sometimes with great solemnity, at a festival called the coral feast: to lose this necklace was death. Coral was highly valued, and a man's rank seems to have been in proportion to the amount he was allowed to crowd upon his person. The queen-mother sometimes played a great part at the court, and the king's wives were exceedingly numerous.²

In the sixteenth century the more important chiefs were wont, as De Bry tells us, to ride side-saddle upon led horses, a fact which is now borne out by better evidence than that supplied by his rather fanciful plate. They were supported by retainers, who held over their heads either shields or umbrellas, and accompanied by a band of musicians playing on ivory horns, gong-gongs, drums, harps, and a kind of rattle.

Of costume it is difficult to say much in view of the multiplicity of fashions and the necessity for a careful comparison of all available materials. A point which should be noticed is the extraordinary variety in the style of dressing and covering the head; in this respect the remark in De Bry's Latin edition, "*quot homines tot sensus*," seems perfectly accurate, and in a group of fifty people very few would be seen with the same kind of headdress.³ Coral beads were sometimes threaded in the hair⁴ or attached to the hat; the "crown" of the King of Warri was of the latter kind, and 3 feet high.⁵ In the manufacture of caps the skins of leopards and other animals were used, and leopards' skins were also worn on the body. The following is Fawckner's description of the king's special messenger sent out to greet him: "He wore a sort of short petticoat from the waist down to the knees of a cloth . . . resembling our white bunting. This encircled his loins and set off like an ancient dame's hooped petticoat⁶:

¹ Burton in "Fraser," p. 414.

² On the "constitution" of Benin, *vide* Burton *loc. cit.* 288 note.

³ "Ind. Orient.," Part VI, chap. x, and Plate XXVI, where different coiffures are assigned to different ranks and professions.

⁴ Fawckner, *op. cit.*, p. 5.

⁵ King, *loc. cit.*, p. 318.

⁶ Cf. Burton, *loc. cit.*, 414, 283.

the upper part of the body was naked, as well as the legs and feet. His neck was ornamented with strings of red coral: in his hand he held a leather fan."¹ And this is a description of the king in 1820: "The king came in clothed after the fashion of the country and wearing on his head a large round hat ornamented with gold lace. One of his arms was extended in a horizontal direction,² and supported by a great officer of state. The nail of one finger on each hand was of prodigious length, to show that his exalted rank placed him above all necessity of working for his living."³

To the fact that the king's arms were supported by attendants we shall have occasion to recur. Meanwhile we may remark that the same ceremony was observed by Fawckner five years afterwards, and that the queen-mother received a similar mark of respect from her women. The same honour was paid to the captain of war.

Warriors appear to have worn thick clothing on the upper part of the body, especially a kind of surcoat of leopard-skin, often terminating in long pendants fitted with small bells. The weapons used were bows and arrows, swords and spears, with long shields for defence, apparently of rather slender construction in wattlework, and faced with metal plates: on none of the castings in the British Museum does a gun seem to be placed in the hands of a native. The people have nearly always been branded as cowards, and second-rate fighting-men.⁴

The social order rested on a basis of slavery, the slaves being largely drawn from the Sobo country to the east of Benin.⁵ The Bini themselves were fond of trade, and a very large market was held in the city. All commercial transactions with Europeans were carried on by officials or brokers, called *Fiadors*—a word derived from the Portuguese—who went down to Gwato and bought cargoes on behalf of the king. They seem to have had some social status, and to have been invested with the coral collar.

The objects most in demand from Europe were stuffs, metal vessels, beads, horse-tails, and pieces of ring-money called *manillas*, which seem to have been exported as early as the sixteenth century,⁶ and before cowries were first brought round the Cape from the Maldive Islands. The Bini must have been somewhat hampered in trade by the fact that their *Ju-Ju* forbade them to cross water.⁷

¹ *Op. cit.*, p. 82.

² *Cf. Burton, loc. cit.*, 414 and 286.

³ King, *loc. cit.*, 315.

⁴ Bosman, *loc. cit.*, p. 531.

⁵ Boisragon, "Benin Massacre," p. 14. London, 1897.

⁶ Hakluyt, vol. ii, Part II, p. 52.

⁷ Blue Book, p. 46.

Religion as such lies rather outside the sphere of the present paper. It was of the usual West African type, especially similar to that of Yoruba and Dahomey, with plentiful sacrifice of the living to the interests of the dead. Various animals seem to have been regarded with veneration, and the "fetish" practices dominated the daily life of the people. Snakes, leopards, crocodiles, fish, birds, and heads of oxen, are all represented on the works of art.¹

The panels which are our principal subject, form part of a series of about three hundred which are now in the British Museum, at present as a loan from the Foreign Office, but eventually the greater part of them will probably remain there as the property of the trustees. The history of their coming home is this. When it was announced that Benin had been taken and that many curious objects had been discovered there, official representation was made to the Government on behalf of the British Museum, so as to secure at any rate some of the specimens, and samples of these tablets were in consequence sent from the coast, as well as some other objects destined for the Queen. It was recommended that any other such tablets should be sent home, rather than be disposed of on the coast, and eventually the series now at the Museum arrived at the Crown Agent's, and subsequently it was arranged that they should be shown at the Museum.

Their appearance seemed to point to their originally having been buried, for they were, and many of them still are, covered with a fine red earth, in some to such an extent that the details could not be made out. It is not easy to understand why they are covered with this earth, but it seems certain that they were not buried, for Major Gallwey in a letter written just before he went out again, says, "The plaques were found heaped up anyhow on the floor of an empty house in the king's compound. None of them were hanging up nor were any buried. They appeared to be simply thrown in a heap and uncared for. As they all came from the king's compound, it would appear that they were not public property, and one can only suppose that they had been handed down from king to king for many successions, their value being evidently an unknown quantity." This is the only account of their finding that we have, and it effectually destroys any hope that a clue to their origin or use might be found in Benin itself, and we are thus thrown back upon the tablets themselves to solve their own mystery.

¹ Burton in "Fraser," 278; "Abeokuta," vol. i, p. 222. Ellis, "Ewe Speaking Peoples," etc.

It need scarcely be said that at the first sight of these remarkable works of art we were at once astounded at such an unexpected find, and puzzled to account for so highly developed an art among a race so entirely barbarous as were the Bini, and it must be confessed that the latter problem has not yet been solved.

The whole of the tablets are cast in moulds, and to those who are familiar with castings in metal, it will be clear that it is no exaggeration to call these highly developed. The only added tooling upon any of them is apparently the punched diaper, with which the background of nearly all is covered, and the ornament of a similar kind upon the dresses, bodies, or weapons of the figures. It may be that the faces and smoother surfaces have been tooled over, but until the very tenacious coating of red earth is cleaned off, it is not easy to speak with certainty as to this. The relief of some of the parts is very high, in many instances portions of the figures standing quite clear of the background, and it would seem as if the artist who modelled the originals had set himself to put as many difficulties as possible in the way of the caster. All of these difficulties have, however, been overcome with a certainty and skill which only long practice of a familiar art could produce. This alone, it may be mentioned in passing, goes to prove that at whatever period the objects now before us may have been made, they were produced by a people long acquainted with the art of casting metals. The method by which the tablets were produced can only be that known as the "*cire perdue*" process. By no other is it conceivable that so much extravagant relief and elaborately undercut detail could be represented with success. This process is probably familiar to most of the Fellows, but can be described in very few words. The model is first made in wax, and every part of its surface is covered with fine clay, and the whole work is eventually hidden in a mass of clay. An outlet is then made for the wax to escape, and the mass is heated until all the wax has been melted out, leaving of course a mould of exactly the design of the wax in its original state. The metal being poured in, fills every hollow left by the wax. What measure of success has attended the operation cannot of course be known until the clay is broken away to show the metal, and it will be obvious that only one casting can be made from the wax. Subsequent copies must afterwards be made with piece moulds from the first cast in metal. This peculiarity of the "*cire perdue*" process accounts for the fact, that while in several cases there are practically duplicate panels, in no instance are any two identical, the details always presenting some differences. As an instance of the sound apprenticeship that these savage metal-workers

must have served, it may be mentioned that wherever a projection of any size is seen on the front of a panel, a corresponding hollow is found on the back, thus at once lessening the weight and economising the metal.

This "*cire perdue*" process is that by which many of the finest Italian bronzes of the best period were produced, and we thus find the Benin savages using with familiarity and success a complicated method which satisfied the fastidious eye of the best artists of the Italian renaissance.

The panels vary in size, the largest being about 20 inches by 15 inches and the smallest about one quarter of this area. They seem to have been all made for the same purpose, as if to fit on a series of pilasters or on a beam. On Plate XIX, Fig. 1, may be seen one instance of a possible use of them, where they, or something like them, appear on the decoration of doorposts. Nearly all of them have been fixed up by large nails, as may be seen by the holes left where the nails have been roughly driven through. The want of regard for the designs, shown by the careless way in which the holes have been made, might be brought forward as an argument that they were used in this manner at a date long subsequent to their manufacture. But this belongs rather to the region of hypothesis.

The tablets or plaques, though by far the most numerous, show only one side of the art of bronze casting in Benin; the artificers were equally skilful in casting in the round, and the objects brought home comprise human heads, elaborate cylindrical pedestals for the equally elaborate tusks which represented their gods, armlets, and many articles of minor importance. Probably the most artistic and technically perfect of all the castings in the round is the really charming head of a girl,¹ with a reticulated conical head-dress, for which the Museum is indebted to the liberality of Sir William Ingram, Bart., who presented this as well as a very fine bronze stand for a tusk.

These tusks were remarkable both for their intricate carving and, in some instances, for their great size. In one case a tusk measured 7 feet 11 inches along the curve, in these days, I believe, a very unusual length. A considerable number of them were sold on the coast and afterwards disposed of at a City sale. The British Museum could not at the time buy more than one of them, from lack of funds, and two or three more would be welcome additions. It must be confessed, however, that the tusks present fewer variations of design than the bronzes; and the character of the carving is not novel, though many of the designs have not been hitherto known. The carving

¹ See p. 382.

upon them cannot at all compete with the modelling of the bronzes. The wax used for the latter presented no difficulty to the artist, who could easily produce a smooth rounded surface. The ivory carving, on the other hand, is not only inferior to the bronzes, but inferior also to much of the carving seen in the tusks produced further south, in Loango, for instance.

So far as the objects themselves furnish us with evidence, there would seem to be no difference in date of production between the tusks and the bronzes. The symbolism is much the same, as are also the dresses and other details. The tusks themselves show signs of considerable age, and we know moreover from the account of Van Nyendael that the tusks were in the city in the seventeenth century. This brings us to the question of the period at which these objects were produced. On Plate XVII is seen a European with a matchlock, in the costume of the middle of the sixteenth century, the details showing a familiarity with the dress that could scarcely be found at any time far distant from that in which the costume was daily before the artist's eyes. It would scarcely be reasonable, in fact, to think that so accurate a figure was produced in any other way than direct from the original. If it be so, we have a limit of date on one side, say the beginning of the reign of Elizabeth. It then becomes a question whether all of the castings were made at the same time. Another of the Europeans has what may perhaps be a flint-lock in his hand, and this would point to a later date for some of them. Again a large number of the figures of natives wear a well-marked dress, a kind of surcoat with the lower part of the front representing a leopard's face, and a dress of this pattern is in the Museum, from the spoils of one of the officers in the expedition. This coat was the garment of a modern Benin warrior, and though there is no proof that the pattern has not been in use in Benin for three centuries, yet its being in use at the present day is a fact which renders clear proof of its antiquity desirable. Many of the weapons, wands of office, and other objects represented on the tablets are also found in actual use in Benin. Thus the evidence available would seem to show that whereas the earliest date at which we can show the tablets to have been made is the middle of the sixteenth century, perhaps with the help of the Portuguese, there is a possibility that the manufacture continued later, though for how long we cannot at present say. Casting of an inferior kind continues down to the present time.

The term bronze has been used for the metal in which the tablets are cast, but it must not be imagined that they are all

of true bronze, *i.e.*, copper with a percentage of tin. Some of them are certainly of brass. On this point, however, one Fellow, Mr. Gowland, will speak with more authority.

In conclusion it is right that the thanks of the Institute and of all interested in its objects should be given to Sir Ralph Moor, K.C.M.G., Her Britannic Majesty's Consul-General and Commissioner for the Niger Coast Protectorate. But for his prompt and friendly action these very interesting monuments of a lost art might have been dispersed over the globe, instead of forming, as they now do, an important collection so large and various as to furnish a complete history of the dresses, weapons, and ceremonies of the Benin natives.

NOTE.—The foregoing brief account is intended merely as a preliminary sketch of the subject, which the writers hope to treat in a more exhaustive manner in an official publication.

Mr. W. GOWLAND, F.S.A., read the following remarks: Through the kindness of Mr. Read and Mr. Dalton, the authors of the preceding paper, I have been permitted to examine many of the specimens of the art castings from Benin, and to make a chemical analysis of fragments of four of the plaques.

An examination of the greater number of those in the British Museum by means of the touchstone showed that they consisted chiefly of two distinct types of copper alloys, one embracing mixtures of copper, zinc, and lead, and the other, mixtures of copper, lead and tin. The former may be termed "brasses" and the latter "bronzes"; but in neither have any definite proportions of the constituent metals been adhered to, and some of the castings contain both zinc and tin. This, however, is just what might be expected, and what indeed we find in most old metal-work, owing to defective castings, and old broken objects being melted up together, regardless of their composition, and recast. The plaques are generally of bronze, and the statuettes, with a few exceptions, of brass.

It by no means, however, follows that although these two classes of objects differ in composition they also differ in age. For, as the copper-lead-tin bronze is much easier to cast than the copper-zinc-lead brass, especially in the forms of the thin plaques, it would always be employed in making them whenever available.

The following analyses were made of a typical specimen of each type of the alloys.

PLAQUES FROM BENIN.

	Copper-zinc-lead-alloy.	Copper-lead-tin-alloy.*
Copper	78·50 per cent.	84·76 per cent.
Tin	·57 "	2·75 "
Lead	5·85 "	8·38 "
Zinc	14·34 " (by diff.)	1·54 "
Iron	·54 "	·59 "
Nickel	Trace.	·35 "
Arsenic	·11 "	·61 "
Antimony	·09 "	·78 "
	100·00 "	99·76 "

* The amounts of arsenic and antimony present, and the association of these metals with nickel in this alloy, would seem to indicate the Iberian Peninsula, rather than Northern Europe, as the source from which the copper used in making it was obtained.

From these analyses it is evident that neither of these alloys could have been used for the manufacture of guns, or of wire, or rods, or of any objects in which strength was required; nor could domestic utensils, such as pots or pans, have been hammered out of them. They contain so much lead that they are too brittle for such purposes.

Hence the castings consisting of them have not been obtained by melting down any of these articles. The composition of the alloys undoubtedly indicates a foreign origin and points to Europe as the source from which they were derived. They were hence probably imported for the purpose of barter by the Portuguese in the form of ornaments, or of the armlets *manilios*, such as have been long used in that region as currency, and are represented on some of the figures on the plaques.

With one exception, the head of a negress in bronze, the castings are less perfectly modelled than those a trained sculptor would have produced by the *cerà perduta* process by which they have been cast. I hence think they are the work of some of the artisans or armourers, who always formed part of the crews of Portuguese ships of the sixteenth century, or of natives who were taught by them.

A somewhat parallel example to the introduction of European methods of working in metal by these Portuguese navigators in the countries they visited and traded with, is seen in Japan, where the sword-guards of the sixteenth century often bear European designs, executed by European methods.

It is hardly necessary to point out that the presence of zinc by no means indicates that they are of recent date, as brass,

i.e., an alloy of copper and zinc, was made by the Romans before our era, and very largely in Europe generally in the tenth century, by melting copper with calamine (a natural zinc carbonate).

From the foregoing it will be seen that the evidence derived from my examination of these castings in the laboratory, supports the opinions of the authors of the preceding paper with respect to their age, and which are based on entirely different data. I have to thank my friend Professor Roberts-Austen for kindly permitting me to make these analyses in the Research Laboratory of the Royal College of Science.

Mr. R. B. N. WALKER wished to draw attention to a paper recently published in the "*Bulletin de la Société de Géographie de Paris*,"¹ and entitled "*Les Tentatives des Franciscans au Moyen Age pour pénétrer dans la Haute Ethiopie*"; par F. Romanet du Caillaud. In this paper was a reference to a Spanish MS. of the fourteenth century, which was published at Madrid in 1877, under the title of "*Libro del conocimiento de todos los reynos y tierras y señorios que son por el mundo*"; being the recital of the travels of a Castilian Franciscan friar, who, in the fourteenth century, had journeyed throughout the then known world, not only in Africa, but in Asia and in Europe.

M. du Caillaud's version was as follows:—"It was from the Gulf of Guinea that this Castilian reached Christian Ethiopia. He first arrived in the pagan kingdom of Amenuan by a branch of a river which he calls Eufates, but which he distinguishes from the Asian Euphrates. This African Euphrates must be the Niger." . . . "The pagan kingdom of Amenuan appears to be the same as the kingdom of Benin, which in the fifteenth and sixteenth centuries had, although idolatrous, say the Portuguese historians, relations of homage with a puissant Christian prince, bearing the name or title of *Ogane*, and who resided at the distance of twenty moons from Benin, in going towards the East."

In the following paragraph Prester John was mentioned.

Description of Plates.

PLATE XVII.

Fig. 1.—European going out shooting. He wears a round metal helmet with a feather at the back and a hood with vandyked collar, rising to his lower lip. He has on a short pleated kilt and short trousers. The fact that the toes are not represented leads one to suppose that he is meant to be wearing boots. He is armed with a matchlock and short sword, and is accompanied by a dog wearing a collar.

¹ Septième série, tome xvii, 2^e Trimestre, 1896, p. 212.

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- Fig. 2.—European wearing round helmet without feather, and ruff round neck. His jacket is single-breasted and appears to have points across the chest; the rest of his dress resembles that of Fig. 1. He holds a matchlock (?), the match being very distinct, and wears a sword with an elaborate guard.
- Fig. 3.—European (?) of another type with long straight hair, but clean-shaven; he wears a round helmet and a ruff round his neck. The rest of his costume resembles that of Fig. 2, except that the kilt is longer. He is armed with a sword, and is shouldering a matchlock.
- Fig. 4.—European (?) with long hair, conventionally treated, and round full beard. He wears a helmet with raised bosses and two feathers, and is armed with a sword, and what appears to be a pike. He has no ruff but otherwise is clothed like Figs. 2 and 3. In the left hand top corner is a small bust of a similar European, holding an indeterminate object. Below, at the left hand corner, is a complete figure holding a matchlock(?) and in the right-hand corner a bust of a European holding his hand to his mouth. The swords carried by the figures on these four panels are all different, and some seem to have a resemblance to Moorish as well as European types. Fig. 3 wears his sword slung across the shoulder like the natives (de Bry, c. 55).

PLATE XVIII.

- Fig. 1.—A god, or king considered as god. He wears a helmet-like headdress, with vertical top, recalling a Persian form. This is apparently covered with beadwork made of cylindrical coral beads. To the front are attached three larger beads or possibly some sort of charm. He wears a jacket covered with similar beadwork, from the lower border of which are suspended small human masks, possibly of cast metal. On his wrists are large [carved ivory] armlets. He wears the usual "beluku" or long loin-cloth, with guilloche border and covered with chased ornament, of which specimens are given in Plate XXII. He has broad anklets probably of coral beadwork, which were a sign of higher rank than necklaces.¹ A fish resembling a catfish, of a kind constantly repeated in both casts and carvings, issues from each of his sides, while in each hand he swings a leopard by the tail, after the fashion represented in Sassanian carvings.
- Fig. 2.—A group of three persons dressed very similarly to Fig. 1. The central figure or god has both arms supported by kneeling attendants who wear the collars² and anklets which testify to their high rank. Instead of legs, his body terminates in two fish resembling those seen in Fig. 1, giving him a superficial resemblance to the gnostic figure Abraxas. Round his neck is a coral necklace, and to his girdle are suspended masks in the form of crocodiles' heads. At the bottom of the plaque are two leopards in curious perspective. The god is represented in various forms, and with various attributes. Compare Plate XXI.
- Fig. 3.—Group of three figures, the central person seated on a cylindrical stool and holding an axlike object in the right hand. The two other figures are kneeling. All are dressed as before, but the central figure has five larger beads (?) on the front of his headdress. Above are two small busts of long-haired Europeans, wearing curious helmets or hats with feathers and three bosses. One holds a "manilla" in his right hand, the other is holding something to his mouth.
- Fig. 4.—Group. In the centre a king or chief with elaborate headdress and necklace of coral and agate beadwork. He has long armlets, and the high coral anklets, and wears the long loin cloth. An attendant on each side holds a shield over his head as a mark of honour.³ All three

¹ Burton in "Fraser's Magazine," 1863, p. 288.

² Burton, *loc. cit.*, p. 414.

³ De Bry, "India Orientalis," Part VI, chap. 55.

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¹ Burton in "Fraser's Magazine," 1863, p. 288.

² Burton, *loc. cit.*, p. 414.

³ De Bry, "India Orientalis," Part VI, chap. 55.

figures have the tribal marks of the Bini, consisting of three vertical cicatrices over the eyebrow and long parallel scars down the body.¹ Between the two attendants and the king are two smaller figures, possibly boys, one of whom appears to be holding a drum in his hand.

PLATE XIX.

Fig. 1.—Verandah of a house with four standing figures, all with the cicatrices over the eyebrows and down the front of the body. None of these appear to represent very important persons, for they have neither the broad coral collar, nor the broad anklets. The mode of dressing the hair differs slightly, the two inner figures not having the long plaits terminating in [lumps of clay].

The same pair carry the characteristic shield, apparently of bamboo or other wattlework faced with a metal plate. In addition to necklaces they wear gorgets of leopards' teeth and the "beluku."

The nude outer figures may possibly represent the king's "cutlass boys," who, according to Burton,² appeared naked. They hold in their hands the circular fan made of hide which is in common use to the west of the lower Niger.

The roof does not appear to be covered with palm-leaf in the usual style, but rather suggests the use of tiles or shingles. The pillars are remarkable as being composed either of carved or cast figures superimposed, or of wood faced with metal plaques.

The three steps in the centre are in accordance with a statement in de Bry.³ On the uppermost stand two cast-metal leopards, such as have been brought home by the expedition, and what appear to be two neolithic axe heads. Such axe heads seem to be represented on several of the cast objects, under circumstances which suggest that they were held in veneration. This supposition would be confirmed by a similar veneration for stone implements in other countries after the introduction of metal, but more especially by a case in point from Fernando Po.⁴ The last and most important thing to notice is the snake fixed head downwards on the roof, to which allusion has already been made.⁵

Fig. 2.—A noble, riding side-saddle, after the fashion depicted in de Bry's plate.⁶ The upper part of his body was bare, as was apparently usual in time of peace; and he wears the "beluku" and broad anklets. Round his brow are coral beads; and a feather projects from his head, which is dressed in one of the more familiar fashions: broad bracelets of carved ivory (?) adorn his wrists. Each arm is stretched out and supported by an attendant walking on either side, and wearing only a narrow necklace, but no anklets. Each of these attendants has an ornamental band "*en bandoulière*" across the right shoulder, with a long pendant down the left side, ending in a small bell. Their heads are partially shaved, and dressed in ridges with pig-tails. The horse, which is small and asinine in appearance, is led by another attendant and answers both to Burton's⁷ description of the Yoruba pony and to

¹ De Bry, *loc. cit.*, Part VI, chap. 55, "Auch schneiden sie in ihrem Leib von der Achsel an bis ungefähr an die Weych . . . drey grosse lange Schnitt auf beyden Seyten . . . und halten dasselbe für eine grosse Tugendt, so zu ihrer Seligkeit dienlich"; and Burton, *loc. cit.*, 147, 410.

² In "Fraser," p. 414. De Bry says that all young people went naked until marriage.

³ *Loc. cit.*, chap. 55.

⁴ Hutchinson, "Impressions of West Africa," p. 192. London, 1858. The axe heads were in the custody of the king.

⁵ See above, p. 6.

⁶ De Bry, *loc. cit.*, c. 55, and Plate XXIII. In this chapter is a full description of the way in which Benin nobles rode to court.

⁷ "Abeokuta," i., 61.

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de Bry's picture of the Benin horse.¹ The King of Benin seems to have sat astride of his horse. Possibly warriors did the same.

Fig. 3.—This elaborate group apparently represents a capture, a theme repeated upon other panels with a striking similarity of treatment. In all, the captive is astride of a small horse, and has his face marked with cicatrices or scars running from the bridge of the nose right across the cheek. These marks are not the Benin "blazon," and it seems probable that they point to a hostile nationality to commemorate the defeat of which these particular plaques were cast. If the countrymen of these captives fought on horseback, the reference may be to some people dwelling to the north of Benin, or possibly to the west, in the Yoruba country.

In the present instance the unfortunate prisoner is completely transfixed by a spear with a long leaf-shaped blade, of a type very frequently met with, and wears a basin-shaped helmet or hat.

The captor, who is bearded and wears a full panoply, with a head-dress covered with bosses, and the square bell so often seen suspended round the neck of warriors or executioners, grasps his captive with one hand, while in the other he holds a sword shaped like a machete. Of the two other armed figures in the lower row, one shoulders, like a gun, two rods apparently bound together, forming an instrument or weapon which occurs on several other plaques. His headdress is covered with cowries, a fact which might be of importance in determining dates if it were certain that no cowries had found their way to Benin before they were imported by Europeans from the Maldive Islands. The companion figure in the lower row carries a spear and the usual shield.

In the upper row are three smaller figures, two of which seem to be musicians in the train of the captor, while the third, who is kneeling as a suppliant, is evidently a compatriot of the captive, for he has the same curious marks across the face. His helmet, or cloth head-piece with lateral flaps, is of a type worn by the principal captive on another plaque, and the same remark applies to the peculiar sword which he wears.

Fig. 4.—The three figures on this tablet wear peaked (metal) helmets, those on the outside with bosses and cheek-pieces, and broad collars or straps round their necks. Each holds in his left hand a pair of "manillas," or metal armlets of a horse-shoe shape, which became a currency on the Guinea Coast at an early date. De Bry states that before the arrival of the Europeans the natives had no currency, but were content with barter—*meris bonorum permutationibus*; his statement, however, is perhaps open to question. "Manils of brasse and some of lead" are mentioned by Hakluyt as regular objects of exportation to West Africa in the second half of the sixteenth century, but it is as difficult for us to say whether these were of this peculiar "Celtic" shape as it is to determine the origin of their adoption in the African trade, or the precise period when they became a currency. A further point of interest raised by the question of currency is the comparative seniority of these *manillas* and cowries as forms of money. It is stated in Astley's Collection³ that cowries were unknown in this part of the world until 1600 A.D., but this is perhaps contradicted in James Welsh's account of the voyage of Messrs. Bird and Newton to Benin

¹ De Bry, Latin edition, c. 55, p. 121, "Equi satis generosi, nostris tamen multo minores," "not much bigger than calves." (German edition.) The Latin translation, by Artus of Dantzic, does not always correspond exactly with the German.

² "Ind. Orientalis," Part VI, chap. 19.

³ Vol. ii, p. 652.

in 1588 A.D., where the following sentence occurs:—"Their money is pretie white shels, for golde and silver we saw none."¹

If points like these could be definitely settled we should be in possession of valuable evidence with regard to the date of the plaques in general, on so many of which manillas and cowries occur, the latter always in the form of ornament. It may be added that the frequent appearance of manillas in the hands of the long-haired foreigners would suggest their introduction from the part of the world from which those foreigners came.

The central figure has a helmet with bosses, but no peak; it is furnished with a large looped chin-strap. On his legs are narrow anklets, and in his right hand is a staff terminating at the upper end in a crocodile's head with a fish between the jaws—a *motif* which we meet with on other objects. Possibly this staff is a "king's stick" carried as a badge of authority as is the usage in other parts of West Africa.

PLATE XX.

Fig. 1.—A warrior, with curious mitre-shaped headdress, with a curl of hair protruding by the left ear. He also wears a horizontal band across the chest with pendants and bell. In his right hand are barbed spears, in his left a shield with a curved object which may represent some form of club.

It should be noted that the chased background of this plaque shows a variation on the usual quatrefoil design.

Fig. 2.—The central figure is here attired in what appears to be a feather dress, on the front of which, as also on the arms, snakes may be seen, invariably with the head downwards. Whenever the feather dresses occur these snakes are found, either singly, or intertwined like the snakes of a caduceus. This would suggest that the figures wearing such dresses held some particular office; possibly they are "Fetisseros" or "Fetishmen." The headdress with its long pendants is remarkable, as also are the broad chainlike anklets, which do not appear to be coral. The broad knife with loop at the butt seems to have had some ceremonial significance. (Burton, "Fraser," 281.)

The spears, one of which is held by two persons, are of a type already illustrated. The costume of the other figures presents few features which have not been already noted. They wear leopard skins and bands across their chests with bells depending from them, while on their necklaces and headdresses cowries may be remarked. One of the smaller figures holds a pair of "gong-gongs" chained together at the base.

Fig. 3.—This figure is remarkable for the curious humped breast and for the long loose garment. The hump recurs on several plaques sometimes on persons nude to the waist, the sex being always male. It would seem to represent some malformation of a well-known and distinctive nature or to have been derived from some sort of corslet.

The hair appears to be made up with coral beads² and to be dressed in a ridge, recalling the Hawaiian helmet. In each corner of the plaque is a raised crescential object the meaning of which it is hard to determine, although it is found upon other objects besides the plaques. Under the crescent in the left hand top corner is a standing or walking figure of a straight-haired foreigner, holding a stick (?) in his right hand.

Fig. 4.—The man on the left in this group is wearing a cross on his breast. Unless we are disposed to accept the story about Ogané, we must assume that this fact gives us a *terminus a quo* in attempting to date these castings. For it seems probable that the idea of wearing a cross

¹ "Hakluyt," vol. ii, Part II, p. 127. London, 1599.

² Fawcner, "Narrative," p. 5.

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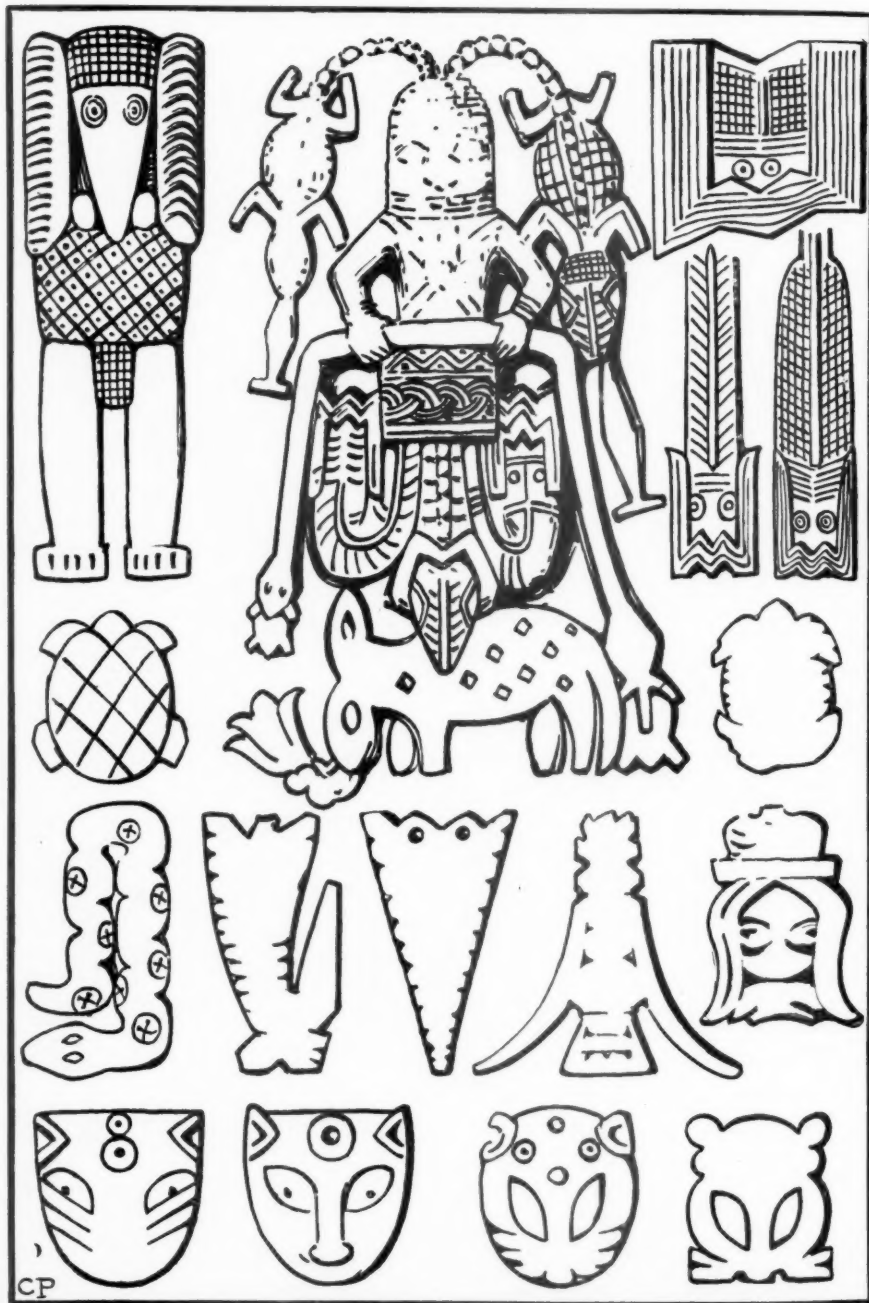
2.



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in this way was suggested by the Portuguese usage. But on the other hand, as has been already remarked, the type of cross resembles that in use in the Eastern church. All the men wear broad anklets, and seem therefore to be persons of rank.

The central figure wears crossed bands of coral beads over the body, and a necklace of large beads, possibly of agate, round the neck. In his hand he carries a staff or wand, and at his left side is some kind of perpendicular ornament running right up the body, the nucleus of which may be the end of the "beluku" twisted up and provided with something to stiffen it. This peculiarity may frequently be observed elsewhere. Chased on the beluku itself are heads of long-haired men and other objects, probably inwoven in the original textiles.¹

The ordinary cicatrices are visible in all the large figures, with the addition, in the central personage, of a raised mark between the eyes. Burton says of the Captain of War: "His forehead was adorned with a broad stripe of chalk from the hair to the nose-tip, and upon this was drawn a thin line of clotted blood from a goat freshly sacrificed."² Some such raised ornament may be indicated here. A brass mask in the British Museum has a piece of copper of just this shape inlaid in precisely the same place.

Of the three smaller figures, none of which have anklets, two wear collars of leopard's teeth, while the central person wears the broad coral collar. They all wear across the body ornamental "bandoliers."

PLATE XXI.

Details from Ivory Carvings.

The top figure on the left represents a monster with a human body and elephant's head. The tusks appear on each side of the long triangular face, while the large ears are unmistakable. A less conventionalised elephant's head occurs in relief on a cast brass pedestal in the British Museum. The three objects in the top right-hand corner are variations of the fish which forms the legs of the bigger figure in the centre, and which may be a kind of catfish held sacred by the Jakris: all three are taken from carved tusks. The large central group, also from a tusk, represents the "god" with whom we have already made acquaintance, but more richly endowed with attributes. From his head issue two crocodiles, each devouring a fish; a third crocodile comes down between his legs, and has in its jaw a cow (?) or sheep, which is itself browsing upon a plant. Across his body the figure holds a long two-headed snake with a frog in each of its mouths. Snakes devouring frogs are found upon cast heads and masks. In the centre of the plate and on the right and left are two tortoises. (?)

In the upper of the two lower rows there is a snake on the left with conventionally represented scales. The two objects on the right, derived from carved ivory armlets, seem to represent conventionalised heads of the long-haired people already familiar from Plate XVII, Figs. 3 and 4. Of the two other figures, that on the left may be intended for an arm holding a knife, for detached arms and hands occur with comparative frequency both on metal and ivory, probably with a symbolic significance.³ It seems probable that the form given in Fig. d, may be a component part of some of the conventional patterns.

The accompanying small cuts illustrate this



¹ See Plate XXII.

² In "Fraser," 1863, p. 286.

³ In "Fraser," 1863, p. 279.

point. *a* and *c* are found on the base of a brass pedestal: *b* occurs on a tusk: *d* is frequently chased on the garments of the figures on the plaques. It seems to be meant for an arm; but the fingers often disappear leaving it almost crescent shape.

The hand in *b* and *c* is clasped upon some small object, and the general appearance of *c* suggests that of the little amulets used in South Europe against the evil eye and carried by the Spaniards to South America. The triangular object in the centre of this row might conceivably bear some relation to the elephant's head above; but this is a mere conjecture, for which there is no satisfactory evidence.

In the lowest row are four different versions of a leopard's head.

PLATE XXII.

Details of Chased Ornament.

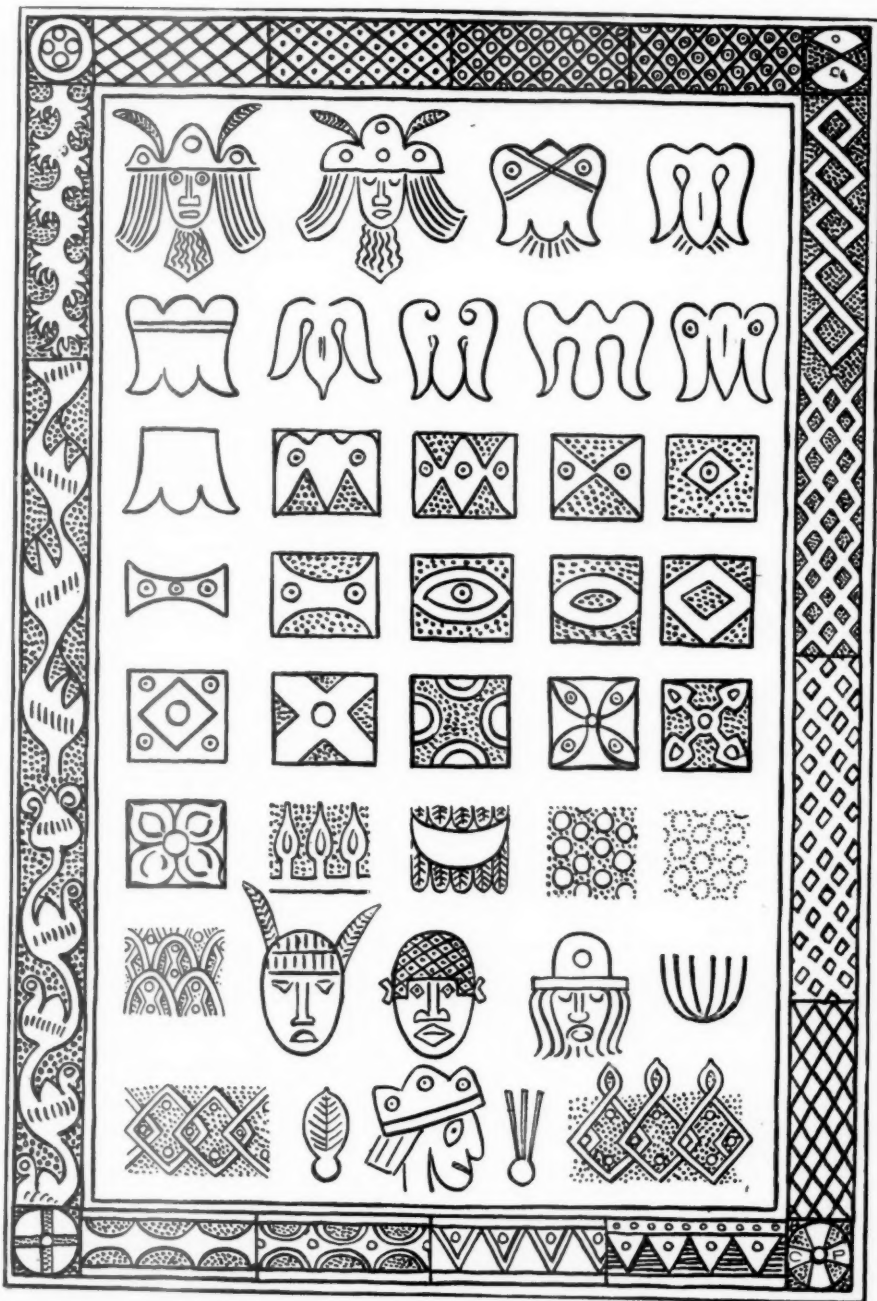
This plate presents various details of the ornaments found chased upon the plaques or executed in *repoussé* work on brass plates. Many of these seem to illustrate a continuous process of degradation or conventionalisation. This may be more especially remarked in the upper rows. The human head with long hair, together with a detached arm (see cut *d*) is nearly always found engraved on the *belukus* or loin-cloths. The conventional treatment of the leopard's skin may be noticed to the right of the third row from the bottom; and in the bottom row to the left of the central head is a leopard's ear with its curious leaf-like treatment, while on the right is one of his "whiskers."

A native head, like one of those in the second row from the bottom, is usually found on the *belukus* in addition to a head of the long-haired type.

Of the various designs represented in the border, the most interesting are those on the left hand side. In the central section the artificer has left traces of his method of work, the transverse lines running across the tops of the "petals" having been first incised, and two triangles being subsequently drawn upon them and filled in by punching. It may be added that the sequence of many of the details within the plate is of course very far from being complete or final.



HEAD OF A GIRL CAST IN BRONZE.



A QUINARY SYSTEM of NOTATION employed in LUCHU on the
WOODEN TALLIES termed SHŌ-CHŪ-MA. By Professor
BASIL HALL CHAMBERLAIN.

[WITH PLATES XXIII-XXIV.]


I.









A BRIEF mention of these wooden tallies, together with the representation of a single specimen, will be found in the "Geographical Journal," for June, 1895. But as the system of counting employed in them has never yet been analysed or described in any language—not even in native Luchuan itself, or in Japanese—I venture to revert to the subject, and to submit to your consideration fac-similes of six specimens preserved in the Anthropological Institute of the Science College of the Imperial University of Japan, the fac-similes having been executed by kind permission of the Curator, Professor Tsuboi Sbōgorō. The larger figures are alone original, the smaller ones being a Japanese (Chinese) interpretation added afterwards.

It will be noticed that these tallies vary from $11\frac{1}{2}$ inches to $2\frac{1}{2}$ feet in length, with a breadth of from 1 to $1\frac{1}{2}$ inch, and that some are thin and flat, presenting only two surfaces for inscription, while others admit of the four sides being written on. All are quite rude in workmanship. Till recently, such tallies were much employed in the rural districts of Luchu, more especially as records of matters referring to the assessment of taxes both in money and kind, each item being inscribed on the tally with charcoal, or any other convenient material that came to hand. The custom may be traced to a hearsay knowledge of the Chinese written character among the Luchuan peasantry, who, not possessing sufficient learning to employ this character itself, and not being encouraged by their rulers to acquire the elements of an education deemed unsuitable to their lowly station, developed a make-shift of their own. One result of this origin has been to keep the *Shō-chū-ma* out of sight; for the learned despised such an imperfect system of records, and the villagers themselves felt more or less ashamed of perforce resorting to it. At the present day, when the schoolmaster is abroad in Luchu, as elsewhere, scarcely any native can be brought to speak of the subject, or to exhibit any specimens he may possess for fear of being laughed at as behind the age.

II. THE MONEY COUNT (Pl. XXIII, A. 1, 3;


B. 1. Pl. XXIV, D. 4, and F).

The symbols inscribed on the *Shō-chū-ma* tallies fall into two widely divergent categories, viz., *numerals*, and *signs* for people's names. We will treat first of the numerals, which are arranged on a quinary basis, and are differentiated according to the material that has to be counted. Rice, firewood, and money are the three materials that occur. Anciently Luchu had no coinage, and all tribute was in kind; but from the middle ages Chinese coins began to filter in, and after the Japanese conquest in the seventeenth century, Japanese copper cash obtained a limited circulation in the archipelago, or, at least in the chief island—historic facts that have recorded themselves in the symbol  for "money," a representation of the Chinese and Japanese bronze or copper cash with a square hole in the middle for stringing. A thousand cash (*mung*¹) make one string (*kwang*²), and the sums that present themselves for counting assume such forms as 9 *hwang*, 50 *mung*, 32 *kwang*, 950 *mung*, 2 *kwang*, 300 *mung*, etc., 50 *mung* being the lowest value that occurs. The table on p. 385 shows the numeral signs employed in the Money Count.

Putting aside the lines —, =, ≡, for 1, 2, and 3, as the common property of all nations, the only numeral here apparently borrowed from the Chinese is , the symbol for 10. The system followed up to 4 inclusive consists in having dots for one column, horizontal lines for another, horizontal and vertical lines combined for another, and a circle as the foundation form of another. With 5, in each case, we encounter a totally new form, which serves as the basis for 6, 7, 8, and 9. Some of the forms of 5 have probably been obtained by halving , the figure for 10. Compare, for instance,  with , , and  (found in the compound  or , signifying 7).


















That halving is resorted to in other cases appears from tally F (Pl. XXIV), to be discussed later on.

¹ Written with the Chinese character , pronounced *mon* by the Japanese.



² Written with the Chinese character , pronounced *kwan* by the Japanese.






	Hundreds of Kwang.	Tens of Kwang.	Units of Kwang.	Hundreds of Mung.	Tens of Mung.
1	○	士, 𠂇, 工	一	·	
2		𠂇, 𠂇, 工	二	· ·	
3	⊕	𠂇, 𠂇, 𠂇	三	· · · ·	
4		𠂇, 𠂇, 𠂇	四	· · · · ·	
5		𠂇, 𠂇, 𠂇	𠂇	𠂇	𠂇
6		𠂇, 𠂇, 𠂇	𠂇	𠂇	𠂇
7		𠂇, 𠂇, 𠂇	𠂇, 𠂇, 𠂇	𠂇, 𠂇, 𠂇	
8			𠂇, 𠂇, 𠂇, 𠂇	𠂇, 𠂇, 𠂇, 𠂇	
9			𠂇, 𠂇, 𠂇, 𠂇, 𠂇	𠂇, 𠂇, 𠂇, 𠂇, 𠂇	
10		+	𠂇, 𠂇, 𠂇, 𠂇, 𠂇	𠂇, 𠂇, 𠂇, 𠂇, 𠂇	



The above table has been deduced from an examination of tally A (Pl. XXIII), which comes from the district of Kushi in Northern Luchu, some 45 miles from Nafa. The other tallies B and D, from Chimu in Central Luchu, about 30 miles from Nafa, present local variations affecting the form though not the system.


Thus, we find in these latter, the sign for 50 cash rounded,  (instead of ) . More divergent still is  for  in the 100 column of *mung*, with , , etc., instead of , , etc. Again, the unit column of *kwang* has vertical instead of horizontal lines; for instance 1 is , 2 is , etc., up to 4 inclusive, while 5 is  (but also ) , 6 is , etc. In the 10 column of *kwang* we find 5 represented by  and , and 100 *kwang* is written  instead of  . Such numerous dialectical variations, if one may so phrase it, within a distance of less than 20 miles, show the isolation in which each village lived out its life.







Before leaving the Money Count, it will be advantageous to present some concrete instances of this method of recording numbers, as the combinations are not always clear at first sight, especially in the ten and unit columns of the *kwang* :—





 means 27 *kwang*, 100 *mung*. Analysis:  is 20, the added horizontal line — brings it up to 25, and the two lines below make 27 *kwang*. The dot is 100 *mung*.






 means 63 *kwang*, 50 *mung*. Analysis:  is 50, to which add  meaning 10, thus making 60, and , 3, making 63 *kwang*. The 50 *mung* is regularly represented by .

 means 25 *kwang*, 300 *mung*. Analysis: , 20, to which add a lower horizontal line joined on by a ligature to the upper part of the complex figure, and 25 is obtained. That the lowest line is not actually horizontal, but dashed up towards the right, imitates a common feature of Chinese calligraphy. The three dots regularly represent each 100 *mung*, hence 300 *mung* altogether.

 means 352 *kwang*, 250 *mung*, each of the elements 300, 50, 2, 200, and 50 being distinctly written, as will be seen by reference to the table.

 means 36 *kwang*, 550 *mung*. Analysis:  is 30, which prolong to  to make 35, and add  below, making 36.  is the regular symbol for 500 *mung*, and  for 50 *mung*, the distinction between the two being emphasised by the difference of size.

 means 73 *kwang*, 300 *mung*. Analysis:  is 50 *kwang*,  20 *kwang* more, making 70, and  3 more, making 73 in all. The three dots are 300 *mung*.

 means 32 *kwang*, 950 *mung*. Analysis:  is 30 *kwang*, to which add , making 32.  is 500 *mung*, and each dot inside it is 100 more, making 900 *mung*, while , as usual, is 50 *mung*.

These instances should render the system tolerably clear.

III. THE FIREWOOD COUNT (Pl. XXIII, B. 2; Pl. XXIV, D. 1).

This count has four columns, viz., units, tens, hundreds, and thousands (of bundles):—

	Thousands.	Hundreds.	Tens.	Units.
1	⊙	○	+	•
2		⊖	±.±	••
3		⊕	≡	
4		⊕	≡	
5		⊖	⌒	┐
6		⊖	⌒	
7		⊖	⌒	┐
8		⊖	⌒	
9		⊖	⌒	

This Count, closely similar to the Money Count, shows us the figure ⊙, 1,000, formed from ○, 100, by the insertion of a dot, and such interesting combinations as ⊕, 900 bundles;


⌒, 90 bundles; ≡, 75 bundles; ⊕, 315 bundles, etc.

IV. THE RICE COUNT (Pl. XXIII, B. 3
and C; and Pl. XXIV, D. 2).


Premising that—




1 <i>to</i>	contains	10 <i>shō</i>	} of grain measure. ¹
1 <i>shō</i>	"	10 <i>gō</i>	
1 <i>gō</i>	"	10 <i>shaku</i>	
1 <i>shaku</i>	"	10 <i>sai</i>	


We here again find the number 5 playing the leading part. Beginning with the lowest denomination, the analysis of this Count is as follows:—


5 *sai* is written .


5 *shaku* is written .


smaller values of either being represented by dots below, for instance, 7 *shaku*, 5 *sai*, written .

5 *gō* is written , smaller values of this row also being represented by dots, thus  for 6 *gō*. It thus comes naturally to pass that the important value 1 *shō* is denoted by means of two vertical lines, thus , appended dots serving as before; express any smaller values, thus:—

 is 1 *shō*, 1 *gō*.

 „ 1 *shō*, 5 *gō*.

 „ 2 *shō*.

 „ 2 *shō*, 2 *gō*, etc.

In accordance with the essentially quinary nature of the system, there exists a special figure for the value of 5 times 5

¹ Being uncertain of the Luchuan pronunciation of these names of measures, I have employed the Japanese. In Japan, 1 *to* contains a little less than one-quarter of an Imperial bushel. Of the contents of the Luchuan *to* I am ignorant; but we may safely predict that it was a varying quantity, differing from village to village.

$g\bar{o}$, viz.: \top , which thus represents $25\ g\bar{o}$, in other words $2\frac{1}{2}\ sh\bar{o}$. Its compounds proceed quite regularly, for instance—

$\begin{array}{c} \top \\ | \end{array}$ literally $2\frac{1}{2}\ sh\bar{o} + 5\ g\bar{o} = 3\ sh\bar{o}$.

$\begin{array}{c} \top \\ ||| \end{array}$ literally $2\frac{1}{2}\ sh\bar{o} + (4 \times 5\ g\bar{o}) = 4\frac{1}{2}\ sh\bar{o}$.

The next sign to notice is \pm , representing $5\ sh\bar{o}$. The figure $\begin{array}{c} \pm \\ || \end{array}$ may serve as an example of a compound. It is literally $5\ sh\bar{o} + (2 \times 5\ g\bar{o}) = 6\ sh\bar{o}$.

The next higher sign, proceeding always according to the quinary method, is $\begin{array}{c} \pm \\ \pm \end{array}$ or $\begin{array}{c} \pm \\ \pm \end{array}$, formed by compounding and compressing \pm ($5\ sh\bar{o}$) and \top ($2\frac{1}{2}\ sh\bar{o}$). It thus signifies $7\frac{1}{2}\ sh\bar{o}$. The figure $\begin{array}{c} \pm \\ \pm \end{array}$ occurs as a regular compound of this last to signify $8\ sh\bar{o}$.

One *to*, being equivalent to twice $5\ sh\bar{o}$, is represented by $\begin{array}{c} \pm \\ \pm \end{array}$, a contraction of \pm doubled, and on the same principle $1\frac{1}{2}\ to$ ($= 15\ sh\bar{o}$) is written $\begin{array}{c} \pm \\ \pm \\ \pm \end{array}$, that is \pm trebled. One *to*, $2\frac{1}{2}\ sh\bar{o}$ is denoted by the sign $\begin{array}{c} \pm \\ \top \end{array}$, corresponding regularly to $\begin{array}{c} \pm \\ \pm \end{array}$ which signifies $7\frac{1}{2}\ sh\bar{o}$, as stated above. $\begin{array}{c} \pm \\ \pm \end{array}$ signifying 1 *to* $5\frac{1}{2}\ sh\bar{o}$, and $\begin{array}{c} \pm \\ \pm \end{array}$ signifying 1 *to* $3\ sh\bar{o}$, may serve as examples of compound forms.

An auxiliary feature of the system followed in the Rice Count is the horizontal line sometimes employed to separate one decimal value from another, as:—

$\begin{array}{c} \top \\ \hline \cup \end{array}$ $2\frac{1}{2}\ sh\bar{o}$, 5 *shaku*, where the upper symbol \top represents $2\frac{1}{2}\ sh\bar{o}$, the lower \cup 5 *shaku*.





signifying 1 *shō*, 3 *gō*, 2 *shaku*, 5 *sai*.










signifying 1 *shō*, 2 *gō*, 7 *shaku*. The object in employing

this line not as a division between two items, but at the end of all, recalls our European practice in proof-reading, where each correction as made, is followed by a stroke, whether any other correction immediately follow or not.









We may safely conclude the Japanese interpretation to be erroneous in two cases which frequently contradict the rules deduced from a careful study of all the rest. Thus  must be 2 *shō*, 3 *gō*, not 2 *shō* 2 *gō*, as given in the Japanese marginal annotation; and  must be 2 *shō*, not 2 *shō*, 2 *gō*, as in ditto. Such mistakes might easily be committed by neglecting or miscounting the small dots. All persons who have corrected proof-sheets know how much more frequently errors are made in figures than in ordinary writing. Moreover, the Japanese text has other undoubted errors, errors in Luchuan proper names, as *Magari* for *Agai* (the Luchuan for "East") in more than one place, and others.






V. MISCELLANEOUS.

Tally C (Pl. XXIII), to which no village name is appended, differs from the others of the Rice Count, resembling rather the Money Count in form. Instead of a variety of entries, one side enumerates the units of each value—is, in fact, a table of reference—the other represents one concrete sum. The units in each row of figures are:—


	100	<i>byō</i> (bags) of rice.
	10	" " " "
	1	" " " "
	1	<i>to</i> ($\frac{1}{10}$ bag) of rice.
	1	<i>shō</i> ($\frac{1}{100}$ bag) " "
	1	<i>gō</i> ($\frac{1}{1000}$ bag) " "
	5	<i>shaku</i> ($\frac{5}{10000}$ bag) " "

The special sum inscribed on the other side by aid of these values is:—

80	
4	
2	
7	
6	
5	
3	
5	

signifying 84 bags, 2 *to*, 7 *shō*, 6 *gō*, 8 *shaku*, 5 *sai*. Observe the manner in which , 100, is halved in the topmost figure to represent 50, to which , 30 ( signifying 10), is added to make 80. Notice, too, the use of  to signify two different values, viz. 5 *shaku* (part of the complex number , 8 *shaku*) and also 5 *sai*, the next lower place of decimals.

Tally F (Pl. XXIV), similarly without indication of origin, but probably from the same locality as Tally C, closely resembles the latter. It belongs to the Money Count series. The standards of value inscribed on one side are:—

 10,000 *kwang*.

 1,000 „

 100 „

 10 „

 1 „

• 100 *mung*.

 50 „

and the particular sum inscribed on the other side is :—



i.e., 8,786 *kwang*, 750 *mung*. Observe the halving of \oplus , 10,000, to represent 5,000, and of \oplus , 100, to represent 50. The other numbers will be easily read by comparing the analysis given under the Money Count.

Tally E (Pl. XXIV), is difficult of interpretation, because lacking all indication of the material meant to be counted. But the system is the same as that employed, with variations, in the examples already cited. Though no Japanese key has been added to it, the peasant writer has himself been at the pains to repeat most of his figures in rude Chinese as well as in native form, thus supplying a partial key. We thus learn, for instance, that \odot is 7, \odot 9 (consequently 5 must be \odot), for some kind of unit, while ¥ is 7, and ¥ 9 for some other kind of unit. Four appears variously, as |||| , \odot (perhaps miswritten), and \oplus . Sometimes the peasant writer forgets his Chinese or misapprehends it, and explains one of his rustic figures by another. Thus in one place ¥ is given as 6 (Chinese 六); in another it is explained by the rustic symbol |||| , 6 being sometimes thus represented, as shown above. European readers examining the fac-similes must not be led by a vague resemblance in certain cases to credit the peasant writer with a knowledge of the Arabic

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numerals. His sign **IZ** does not mean 12; it is simply a carelessly formed **四**, the Chinese for 4.

VI. ARBITRARY SYMBOLS (Pl. XXIII, A. 2 and 4;
B. 2. Pl. XXIV, D. 1).

In addition to the numerals there appear on some of the tallies, other signs written below the numeral in each compartment, and explained in the Japanese annotation by the name of some house or householder. We may conclude the figure to indicate his quantum of assessment. It has been found impossible to reduce the signs to any system, either phonetic or ideographic. They are evidently arbitrary symbols or badges, adopted for distinction's sake by villagers ignorant of the art of writing, thus¹

1	✕	represents the name	Mē-mī-ya.
2	ㄥ	” ” ”	Nāka-michi.
3	米	” ” ”	Shin-zatu-gwā.
4	米	” ” ”	Shin-zatu.
5	人	” ” ”	Shin-yā.
6	八	” ” ”	Tō-ma.
7	小	” ” ”	Matsu-jō-gwā.
8	コ	” ” ”	Agari-jō-gwā.
9	三	” ” ”	Mī-jō.
10	三	” ” ”	Mē-tēra-yā.
11	冫	” ” ”	Mura-yushi.
12	之	” ” ”	Jin-den-nē-gwā (?)
13	7	” ” ”	Naka-mutu-gwā, etc., etc.

¹ I re-spell and amend, where necessary, the Japanese annotation, which is often incorrect.

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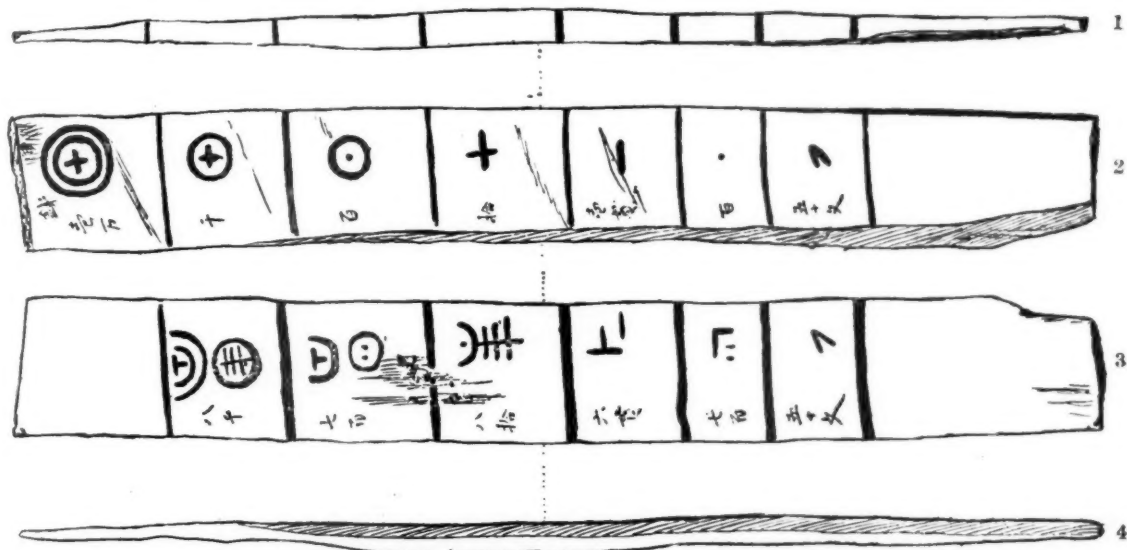
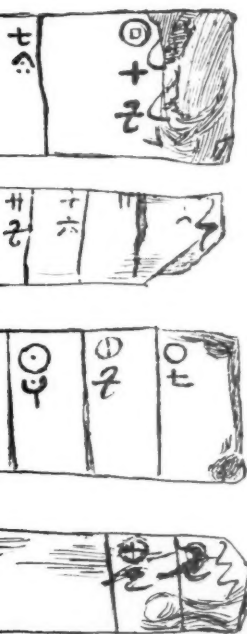
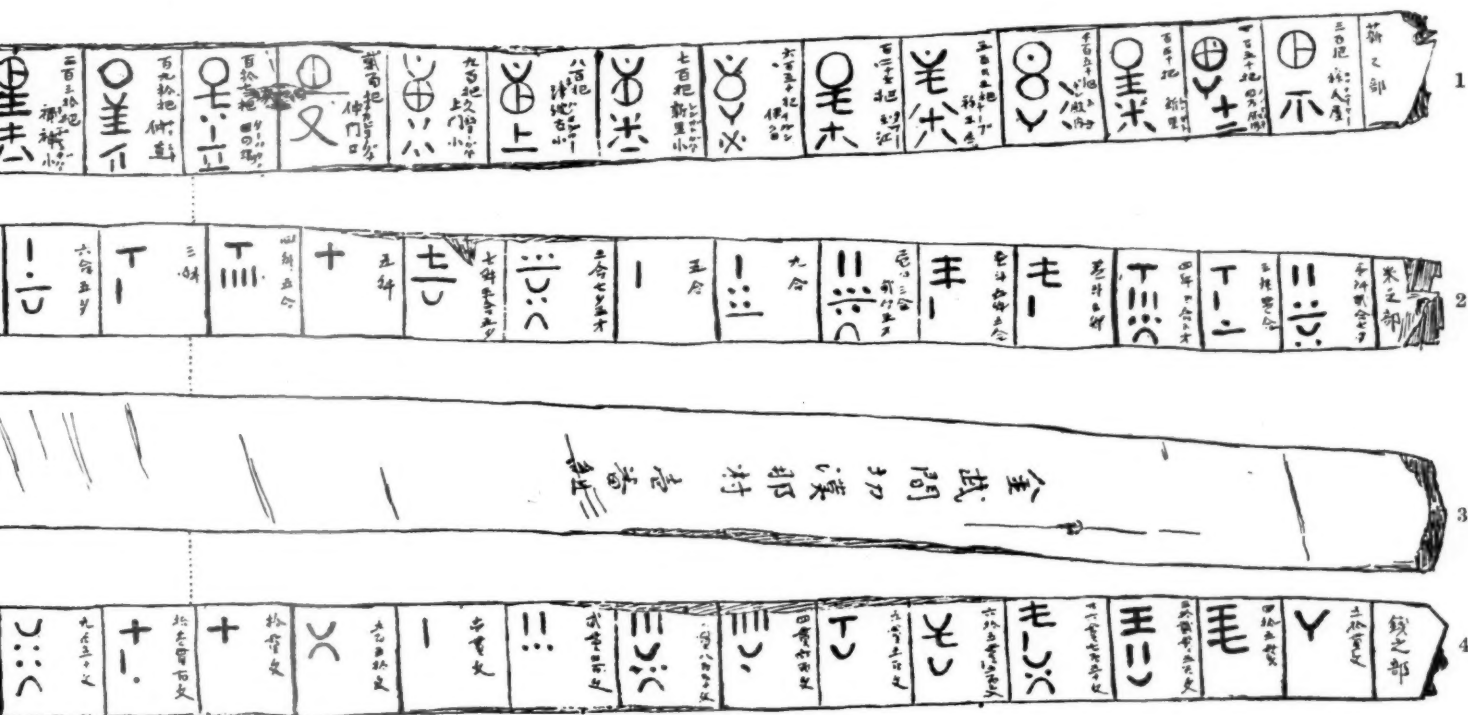
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4 Handwritten text on a strip, likely a fragment of a larger document. The text is written in a cursive script, possibly a form of Chinese or Japanese, and is arranged in a single line across the strip.

D.



F

All that can be said in elucidation is that certain vague analogies tend to make themselves felt. Compare, for instance, Nos. 3 and 4 above. The word *gwā*, "little," "lesser," seems to be often represented by a horizontal stroke; but this is not the necessary and exclusive meaning of that stroke (see, for instance, No. 5). No, these symbols are purely arbitrary in essence, though, when neighbouring householders happened to have similar names, they naturally followed the line of least resistance, and indicated these similar names by similar signs;

thus, 𠂇 already existing as the sign for Shin-zatu, the earliest way of representing Shin-zatu-gwā (literally, "Shin-zatu the lesser") was to add a stroke and write 𠂇.

The symbol 𠂇 is a Chinese character (meaning "rice"), as are a few others, for instance 𠂇, 人, 𠂇; but they are employed without the slightest reference to their original signification, or even to their sound, whether in Luchuan, Chinese, or Japanese. They seem merely to have been used because their shapes were familiar to the eye. These symbols thus differ radically from the system in vogue on the Luchuan islet of Yonakuni, which is pictorial and ideographic so far as it goes.¹ They also stand behind the so-called *Ya-jirushi* of Japan,² which latter, though partly arbitrary, run in certain well-defined grooves more or less pictorial and ideographic in their nature, and testify to a greater expenditure of thought.

NOVEMBER 23RD, 1897.

E. W. BRABROOK, Esq., C.B., F.S.A., *President, in the Chair.*

The Minutes of the last Meeting were read and signed.

Mr. J. STANLEY GARDINER then read his paper on "The Natives of Rotuma," and a discussion was taken part in by the PRESIDENT, Mr. S. H. RAY, Mr. G. L. GOMME, and Dr. GARSON, after which a vote of thanks was passed to Mr. GARDINER for his paper, and for the collection of objects from Rotuma which he exhibited.

¹ See the "Geographical Journal" for June, 1895, p. 537.

² See "Transactions of the Asiatic Society of Japan," vol. xv, p. 50.

The NATIVES of ROTUMA. By J. STANLEY GARDINER, B.A.,
Gonville and Caius College, Cambridge. (Communicated
by Professor ALEXANDER MACALISTER, M.A., F.R.S.)

INTRODUCTION.

[WITH PLATE XXV.]

AFTER the return of the "Coral Boring Expedition" from Funafuti to Fiji, I went in H.M.S. "Penguin," by kind permission of Captain Field, to Rotuma, an island about 280 miles north by east of Viti Levu, Fiji. Here I spent three and a half months, studying the fauna of the island and of the waters adjacent to it. For some weeks I was incapacitated from active work in this direction, and spent the time in collecting the materials, incorporated in this paper. The result, though very incomplete in many ways, will, I hope, be of some interest.

I must, in the first place, express my very great thanks to the Hon. James Stewart, Colonial Secretary of Fiji, for his kindly interest and assistance during the whole time that I was in the South Pacific. My work was made much easier, too, by the interest which Mr. Leefe, Resident Commissioner of Rotuma, took in its progress, and by his ready help at all times. He further recommended me in such a way to the chiefs of the island that I was able to obtain their willing co-operation and help. I am under especial obligations to my friend Marafu, the chief of Noatau, who was undoubtedly the most influential native on the island. At all times I found that he took a great and most intelligent interest in my progress, and was only too ready to give me all the help in his power. Marafu's knowledge of English, too, was greater than that of the interpreter, or any other native I met on the island, although he was extremely diffident of speaking it before a third party. To many of my questions he would defer an answer, until he had consulted the old men about them. Marafu had himself been the *sou* (Sec. XIV), and alone seemed to know anything about the higher meanings of the old religious rites. It is with deep regret that I have heard, since most of this paper was completed, of Marafu's death, on April 20th, 1897; his age was about 65 years. Of Marafu's character I can only say that I always found him a "very white white-man." I was also greatly assisted by Albert, who was for over twenty years the chief of Itoteu, and by Titopu, or Friday, the interpreter, who took the greatest

trouble in investigating various points for me and in his translations of the different legends, etc. Of Friday's patience and good temper I cannot speak too highly. I further received considerable assistance from Father Chevreul, of the "*Société de Marie*," the late Mr. George Peat, and several other white residents in Rotuma.

Since my return to England, I have been greatly assisted by the advice of Baron A. von Hugel, who has kindly looked through a few sections of this paper, and who has arranged the Plates. I am also indebted to Professor Macalister for his advice and encouragement, without which I do not think I should have ventured to put together my materials at all. I have handed over to Professor Macalister a small collection of crania and bones from Rotuma, which I hope may prove of some interest.

CONTENTS.

I. Discovery and Historical.	XIII. Stone and Shell Axes.
II. Early Canoe Voyagers.	XIV. The <i>Sou</i> and his Officers.
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I. DISCOVERY AND HISTORICAL.

Rotuma is stated in all directories to have been discovered by Captain Edwards, of H.M.S. "*Pandora*," in his search for the mutineers of the "*Bounty*" in 1791.

According to native accounts, they always knew white people, but the first one to visit the island was "*Kookee*." Of course this is impossible, but probably he was the first white man they ever heard of by name. Two ships, or according to other accounts one, visited the island under Rourivo; the ships were called the *vaka atua*, or devil-ships, and the sailors *atua*, from the fact that they were dressed in white above and black below. They were also called *arere*, or fire-eaters, from their smoking habits; their flag is said to have been red. Some of the people

went on board to steal, but were fired on by what they termed the *pis bobo*, some sort of cannon. They are supposed to have taken away three people with them to sacrifice to their gods; another account puts the number at one, who subsequently returned. Where they first landed is doubtful. One account given me gave the extreme west end of the island, while another gave Malaha, in the middle of the north side. My impression was that there were two stories, and this was confirmed by Marafu telling me that the visit to Malaha, evidently of the "Pandora," was true, but that the other was an old legend, which he had heard the old people allude to, when he was a boy, about the *atua* coming in great houses on the water, and on leaving them destroying their island by sickness, and, when they tried to escape from the island, drowning them in the sea. I could not get the story properly confirmed or related to me, but I have no doubt of its former existence.

Quiros¹ in his first voyage (1606) kept as far as possible about lat. 11° S. He mentions an island called Taumaco, 1,940 leagues from Lima and 60 leagues from Tucopia, the next island visited. There was little wind, and they lay to till the following morning, when, the ships being to the north of the land, the boats "went to the south-west towards the middle of some small islands which form a channel, which islands at a distance appear like one. Finding a secure port close to the small islands, which are separated from the great island to the east, the armada anchored in 25 fathoms." "At a small distance from the ship was a small islet" situated within the reefs "upon which the natives with much labour had formed a platform a full fathom above the level of the sea." "On it were about seventy houses, which stood among palm trees." Torres describes it as "a town surrounded by a wall, with only one entrance, and without a gate." He then mentions how he went to this island and made dispositions to invest it, on which the chief, with a bow in his hand for a staff, stepped into the water and made signs that his people were in great dread of the muskets. Previous to this, however, boats had been sent on shore and had brought back water, vegetables, etc., but by what means they obtained them is not related.

"Taumaco was inhabited by people of different kinds. Some were of a light copper colour, with long hair; some were mulattoes; and some black, with short, frizzled hair. They all had beards. In their wars they made use of bows and arrows. They were good navigators, and had large sailing canoes, in which they made voyages to other lands." "The natives had

¹ "Voyages and Discoveries in the South Sea," J. Burney, Part II, pp. 287 *et seq.*

hogs and fowls, and the sea supplied them with fish in plenty." The name of the chief was Tumay (Quiros) or Tomai (Torres), a sensible man of good presence, in complexion somewhat brown, with good eyes, nose sharp, beard and hair long and curled, and grave demeanour. To Quiros he gave a list of sixty islands, which they visited. Four men were seized to act as guides and interpreters, and when the chief came off to remonstrate a great gun was fired, not loaded with shot (?). One prisoner jumped overboard the next day, and two off Tucopia, or Chucupia, which was reached on a S.S.E. course in three days. Quiros in his narrative leaves it to be inferred that the same course, due west, was continued. The fourth prisoner was a slave from an island named Chicayana. The people of Tucopia are described as being precisely similar to those of Taumaco in appearance.

Taumaco seems to me to correspond better with Rotuma than any other island in these seas. It is visible at a distance of 35 miles, and might well be seen on the south tack on a course, such as Quiros was sailing. Taumaco is identified usually with the Duff, or Wilson group, north-east of the Santa Cruz group, but a large island to the east and small islands to the west are specifically spoken of, and do not there exist. This group, too, should properly have been sighted to the north, and is almost in sight of the rest of the Santa Cruz group, so that, with the information they obtained from the islanders, they would be naturally expected to keep straight on there. The whole point of their voyage was to keep on one parallel of latitude, so as not to miss the Santa Cruz group; and to suddenly change the course to S.S.E., as Torres alone says, seems to be out of the question. The size is given as 6 leagues long, or 8 to 9 in circuit; no island in the Duff group is more than 2 miles across, while Rotuma is over 8 miles long, so that there, too, it corresponds better. The legend previously referred to points to some early voyagers, and the account by Quiros of the island of Taumaco quite agrees with Rotuma. There is now no islet on the reef to correspond, but it is quite possible that one such existed off Losa of ash-rock and has since been washed away, as there are other ash-rock islands on the reef in which this process is now rapidly taking place.

The account of the voyage of Lemaire and Schouten (1616) makes the king of Solitary Island much struck with their white shirts and black lower garments, so that probably any other islanders would be equally struck by the same in any white man. I think there is no doubt but that Solitary Island is Fortuna; it has no point of resemblance in any way to Rotuma.

After the "Pandora" left, the island was visited by Captain James Wilson,¹ in the missionary vessel "Duff," in 1797. He was followed by several trading vessels in the next twenty years, but none of them left any account of its people. Then came the visit of Duperrey and Chramtschenko in 1822. In their atlas² is a plate to show the physical characters of the people and their mode of dress.

In his search for La Perouse's expedition, Captain Peter Dillon touched here on September 1st, 1827, after having visited the Tongan islands. He appears to have got most of his information from a beachcomber, and writes as follows³:—

"This island is divided into six districts, each ruled by its own chief. These meet in congress every six months, when they elect a president and deliberate upon state affairs, hearing and settling grievances without having recourse to arms. Thus intestine broils seldom occur, and when they are inevitable are not very sanguinary. Parker, who has been upon the island about four years, estimates that during that period not more than forty lives have been lost in battle. It sometimes happens that the president does not wish to resign his post at the expiration of six months, when, rather than quarrel, they allow him to exceed the time appointed by law; but should he persist in a further maintenance of his power, the other chiefs league together, and compel him by force of arms to retire.

"The people seem to belong to the same race as the Friendly islanders (Tongans), but the females are not in my opinion either so cleanly or handsome as those of Tongataboo. They are generally besmeared with a mixture of turmeric and coconut oil, which gives them a reddish appearance. Both men and women wear their hair long and hanging in ringlets down the back and shoulders. It is coloured according to each person's fancy, sometimes white, purple, or red."

About the same time, the island became a favourite resort for American whalers in the South Pacific, as many as nine being remembered at anchor at one time at Oinafa. From these were naturally many deserters, who came to live on the island. At first they were received with open arms by the natives and supplied with food, but in time their numbers became so great, and their behaviour was so bad, that they were left severely alone; from first to last it never went so far as to allow them to starve. Their number at one time cannot have been far short of 100, but fortunately they acquired no lands and few wives, so that

¹ "Missionary Voyage of the Ship 'Duff,'" Captain J. Wilson, 1799.

² "Voyage autour du Monde," par I. Duperrey, 1826, "Atlas Historique," Plate XLVIII.

³ "Voyage in the South Seas," etc., Captain Peter Dillon, 1829, vol. ii, p. 95.

they have, comparatively speaking, left little traces. Their children invariably remained on the island with their mothers, and were brought up just in the same way as a Rotuman child would be. It is recorded, to show their mode of life, that one beachcomber started from his house to make a circuit of the island. Of course he had to stop and get drunk with each white man on his way, so that he was over three months in getting home again. In spite of their many enormities, they were never molested, the only ones murdered, apparently, being killed in their own quarrels among themselves. The captains of the ships undoubtedly encouraged their bad characters to remain on the island during their cruise, as they could always ship more trustworthy and as good men from among the natives. Then, when the cruise was over, they were as a rule quite willing to work their way home again, as all the liquor would be finished. The term *fu fis*, or white man, became from these men one of the worst abusive epithets one native could apply to another.

Tongan native teachers, or missionaries, reached the island about 1840. Six years later the Société de Marie established a mission, at first in Noatau, but it was soon transferred to Matusa. It was not a success, and so in 1853 was withdrawn, with about thirty of its people, to Fortuna. It returned in 1868, and now claims about a third of the inhabitants of the island, while the remainder are nominally Wesleyans. The first Roman Catholic fathers say of the natives that they treated the white people as an inferior race; that they have a great respect for the dead and burial grounds in every village; that each tomb is covered with sand, and each burial ground has a house for play; that all they do is to laugh, sing, jump, and dance; that the king reigns, but has no authority and has for throne a mat; that their chief work is to lie down and eat, and the king only to get fat; that all the island supply food to the king, and that the *mua* is to see that this is well paid.¹

The Wilkes Expedition² only obtained their information from a few scattered natives; Tui Rotuma was the chief of these and was said to be the guardian of a young chief, Tokaniau, who would one day be king.

"The Rotumans resemble the Polynesians in form and complexion, but their features have more of a European cast. They have large noses, wide and prominent cheek-bones, full eyes, and considerable beard." "The expression of their

¹ "Mgr. Bataillon et les Missions de l'Océanie Centrale," par L. E. Mangeret, de la Société de Marie.

² "Ethnography and Philology," by Horatio Hale; "Report of the Wilkes Expedition," 1846.

countenances, which is mild, intelligent, and prepossessing, corresponds with their character, which is superior in many respects to that of the Polynesians. Like the Caroline islanders, they are good-natured, confiding, and hospitable."

The account of their government is inaccurate; there were seven, not twenty-four, districts. The head chiefs about this time were Marafu and Riemkau, but neither were these titles, nor was there any rotation. Reckoning was said to be "by periods of six months or moons," which were called Oi-papa, Taftafi, Haua, Kesepi, Fosoghau, and Athapuaga; the method is then contradicted by the twelve English equivalent months being indicated, while there are of course thirteen moons in a year. The account of the language is however of great value.

J. C. Pritchard says,¹ "The people of Rotuma are very peculiar in their physical characters, which are but little known. They are tall finely made people, of almost black colour, and with straight flowing hair. Their skulls are massive and heavy, almost approaching the weight and density of the crania of African negroes, with the jaws considerably projecting."

W. W. Wood² mentions the graveyards of Rotuma, and gives a plate, but no standard of comparison for size, nor does he state where in the island the particular tomb, he represents, is situated.

J. S. Whitmee remarks,³ "On Rotuma there is also a mixture of the two races (Polynesian and Melanesian), although the Melanesian largely predominates. In fact, it is probable that this island contains a mixture of the three peoples of Polynesia."

Captain Hope (H.M.S. "Busk," 1866) and Captain Moresby (H.M.S. "Basilisk," 1872) visited the island and forwarded reports to the Admiralty on it.

II. EARLY CANOE VOYAGERS.

In Rotuman legends mention is made of visitors from Tonga, Samoa, and Niuafoou, but only a few voyagers can be remembered, and their approximate date ascertained from the genealogical trees of their descendants. I allow twenty years for each generation, and add the age of the descendant who gave me the information.

The first comers remembered were the people of Niuafoou, an island to the north of the Tongan group, who came in several big canoes about 240 years ago; they are supposed to have numbered about 300 men, with no women or children. They landed

¹ "Natural History of Man," 1855, p. 474.

² "Tombs in the Island of Rotuma," "Journ. Anthropol. Inst.," vol. vi, p. 5.

³ "The Ethnology of Polynesia," "Journ. Anthropol. Inst.," vol. viii, p. 261.

at Noatau, where they made friends with the people and learned their language. Physically, they are described as a tall and powerful race. First they assisted the Noatau people to conquer the rest of the island, and then themselves turned round and conquered Noatau. Their chief married the daughter of Urakmata, the chief of Noatau. Henceforward we find the possessor of their chief's name, Marafu, drinking *kava* second on the island and generally looked up to. Finally, after holding the whole island for a generation, they were conquered by Olili, of Maftau, and confined to Noatau.

Next came one "immense" double canoe from Tarawa, in the Gilbert islands, in an absolutely exhausted condition, with both women and children. Fonmon, a Noatau man, brought their canoe to the shore, and then took them before the *sou*, or king, who made a big feast and divided them out among all the districts, where they married and settled down. They stated that they had lost their way owing to a change of wind, and that they had tried to get home again, but were too exhausted to do so; then a fresh wind came up and blew them to Rotuma. One woman, Teauia, is remembered by name. She married Fonmon, and by him had a son, who married the daughter of Matiere. The last had a daughter, who married Maragtu, and their daughter married the great-grandfather of the present Marafu. This gives five generations, 100 years, and Marafu is at least 60 years old, so that their arrival must have been 160 years ago. According to Marafu, it was not the custom in the old days to marry so young, so that it would be probably nearer 200 years ago.

Next came one large canoe from Ruaniua, or according to another account from Tipokia, shortly before the advent of the white man, or about 1780. There was one large canoe, crowded with people, which came to Hatana and remained there, sometimes hiding behind Hoflewa, for several days. They landed twice in the night at Sihe, in Losa, and killed a number of people, whom they took away with them and devoured. They were finally seen from the top of Sol Sorou, a hill above Losa, and preparations made for them. Accordingly, when they landed the third time, the women were all singing in a house, round which the men were ambuscaded. The raiders thought of course they had an easy prey, but, when they had surrounded the house, they were set upon on both sides, and all killed or captured. Several families at the present day trace their descent from them. The name of the place, from whence they came, is given indifferently as Ruaniua or Tipokia. If pressed as to which place, they say Ruaniua, and will give you as the direction from which they came due west; the people are not

described as being in any way different from themselves. I have no doubt that Ruaniua is the same as Leuanewa (Lord Howe's Island, or Ontong Java), and that the canoe came by way of Tucopia, or Cheres Island.

The next visitor was from Tonga, apparently just before the advent of the white man. He is supposed to have come in a big double canoe from Fortuna, and to have left three of the women of that island in Rotuma, and to have taken three Rotuma women instead. He also is supposed to have told the people about the white men, and to have left the Marafu of that day, among other things, an iron axe.

William Mariner gives an account¹ of the voyages of Cow Mooala, who returned to Tonga, after an absence of fourteen years, in 1807. "In his way he touched at the island of Lotooma (about a day's sail from Fotoona), a place noted for the peaceable disposition of the inhabitants, and where he was received with an uncommon degree of respect. As they were little accustomed to the appearance of strangers, they were greatly surprised at the sight of so large a canoe, and considered the chief and his men as *hotooas* (gods), or superior beings, and would not suffer them to land till they had spread on the ground a large roll of *gnatoo*, which extended about fifty yards, reaching from the shore to the house prepared for them. At this island Cow Mooala remained but a short time. During his stay, however, the natives treated him with very great respect, and took him to see some bones, which were supposed to have belonged once to an immense giant, about whom they relate a marvellous account, which is current at Tonga as well as at Lotooma.

"At a period before men of common stature lived at Tonga, two enormous giants resided there, who happening on some occasion to offend their god, he punished them by causing a scarcity on all the Tonga islands, which obliged them to go and seek their food elsewhere. As they were vastly above the ordinary size of the sons of men now-a-days, they were able, with the greatest imaginable ease, to stride from one island to another, provided the distance was not more than about a couple of miles; at all events, their stature enabled them to wade through the sea without danger, the water in general not coming higher than their knees, and in the deepest places not higher than their hips. Thus situated, no alternative was left them but to splash through the water in search of a more plentiful soil. At length they came in sight of the island of Lotooma, and viewing it at a distance with hungry

¹ "The Natives of the Tonga Islands," by William Mariner, 1817, vol. i, pp. 322 *et seq.*

eyes, one of them bethought himself that if this small island was ever so fruitful, it could not supply more food than would be sufficient for himself at one meal; he resolved therefore wisely, out of pure consideration for his own stomach, to make an end of his companion. This he accordingly did, but by what means, whether by drowning him, strangling him, or giving him a blow on the head, tradition does not say. When he arrived at Lotooma he was no doubt very hungry, but at the same time he felt himself so sleepy, that he was resolved to lie down and take a nap, particularly as night was fast approaching, and to satisfy his hunger the next morning; and very lucky it was for the poor natives he did so (for it appears this island was inhabited at that time). He accordingly made a pillow of the island of Lotooma, and not choosing to lie in the water, he stretched his legs over to the island of Fotoona, making a sort of bridge from one place to the other. By-and-by he snored to such a degree that both islands, particularly Lotooma, were shaken as if by an earthquake, so as greatly to disturb the peaceable inhabitants. The people of the latter island being roused from their slumbers, were greatly alarmed—and well they might be—at this unseasonable and extraordinary noise. Having repaired to the place where his head lay, and discovering that it was a gigantic being fast asleep, they held a consultation as to what was best to be done, and came at length to the resolution of killing him, if possible, before he awoke, lest he might eat them all up. With this intention, every man armed himself with an axe, and at a signal given they all struck his head at the same moment. Up started the giant with a tremendous roar, and recovering his feet, he stood aloft on the island of Lotooma, but being stunned with the blows, he staggered and fell again, with his head and body in the sea; and being unable to recover himself, he was drowned, his feet remaining upon dry land, and thus the great enemy was destroyed."

"As a proof of these facts they show two enormous bones which, as they say, belonged to this giant, and the natives in general believe it. The people of Tonga, however, are not so credulous with respect to this story, which they generally tell in a jocose way. Mr. Mariner asked Cow Mooala what sort of bones they were. He replied that they were enormously large, he could not well describe their shape, that he was sure they were bones, though they were not at all like any human bones, and he supposed they must have belonged to some fish. To any new-comer from Lotooma the first question is, 'Have you seen the giant's bones?' But it would appear that communications with Lotooma were not very frequent, since the

inhabitants made so sad a mistake as to think Cow Mooala and his followers gods.

"Cow Mooala shortly took his departure from Lotooma, with three of the native women on board, in addition to his other followers, and sailed for the Fiji islands."

I have no doubt that the visitor from Fortuna was the Cow Mooala, whom Mariner speaks of. Marafu told me fragments of a legend similar to the above, but he stated that it could not be true, as he himself saw the bones when he was a boy, and that they belonged to a whale. He affirmed, though, that the break in the island was caused by the neck of a giant, who had used the island for a pillow; but he had completely forgotten the story, and did not connect it with the bones he spoke of.

A canoe next came from Funafuti, Ellice islands, with both men and women, nearly exhausted from starvation; this would seem to have been about 1815. They have left traces of themselves in several special songs, words, and modes of singing; I know of about thirty people, who trace descent from them.

Shortly afterwards came two canoes from Tonga and shipped 100 men, under Konou of Matusa, to go to Erromango, in the New Hebrides, for sandal-wood. Most of the men caught fever there and died, but both canoes returned in safety with full cargoes. This was the first sandal-wood which came to Rotuma. The date is given by Marasea, a man of about seventy, whose father went there when he was a boy; the date would be hence about 1820.

About 1830 a large double canoe was seen off Noatau, crowded with people in an absolutely exhausted condition, and brought on shore. Their point of departure was Nui, Ellice islands. They too intermarried and settled on the island.

In recent years many single canoes are remembered to have come from the Ellice islands, and two from Fortuna, but the latter people alone seem to have had any idea as to where they were going.

Since annexation to England a boat arrived from Niuataboutabou with three men, two women, and a child on board; it was a carvel-built boat and 22 feet long. They stole it from a German firm at this place, and, in fear of the Tonga Government, embarked with only a small mat sail and one broken oar, while their only provisions were green cocoanuts. After the tenth day they had nothing to eat. The woman's milk dried up, but the baby was kept alive by squeezing water into its mouth out of their clothes, wetted by the rain and the dew. On the seventeenth day Rotuma was reached, and they were brought on shore. Their joy was extreme, as they thought they had reached the Solomon islands, and expected to be eaten.

A canoe, when I was in Rotuma, drifted on shore at Noatau; it was 34 feet long and covered with barnacles. In build it was certainly not Fijian nor Rotuman, and probably came from Uea (Wallis Island) or Fortuna.

Inquiries on the island as to voyages, formerly undertaken by its people, were futile. Marafu's reply was to the effect that formerly they had big canoes of their own and used to voyage in every direction, but that that was before the Niuafouu people conquered the island. The names of stars are as a rule fanciful now, but Marafu pointed me out some named according to the different islands. On my inquiry as to where Tipokia was one evening, he took me outside and pointed to a star which he said was just over it. It may be noted that Cook charts Rotuma as well known to the Tongans in his "Voyages."

Captain Dillon states that the people were accustomed to undertake long voyages to Withuboo for shells, and mentions one canoe which was cast away on Hamoa, or Samoa. Withuboo is probably the same as Oaitupu, one of the more northerly islands of the Ellice group.

III. PHYSICAL AND MORAL CHARACTERISTICS.

Physically the people are scarcely a fine race, though many of them would compare favourably with the Samoans. The average height of twenty men, whom I measured, was 5 feet 7 inches, and of a similar number of women 5 feet 4½ inches. It was, however, noticeable that the older men as a rule were bigger and taller than the younger. Muscularly many of the men are well developed, but few have the large and well-shaped limbs of the Samoan. Hands and feet are generally noticeably small. Faces vary commonly, but all possess characteristically overhanging eyebrows, and thickish lips are not an unusual feature. The mouth is large, and the cheek-bones are often somewhat prominent. The nose is usually rather flattened and broad, while the forehead is as a rule high. The hair is black, straight, and somewhat lank; there is very little of it, though, about the face and body. The colour of the skin is a light brown, varying in tint according to exposure to the sun; under the *sulu*, or loin-cloth, the colour is exceedingly light, and might be called a sunburnt white. The men for the last fifty years have left the island in great numbers as sailors, usually at a very early age. Indeed, it was, and is, considered a disgrace not to have been *furou*, or foreign. Possibly this has given them a round-shouldered appearance and a very bad walk, as both are absent in the oldest men. The men, too, vary far more than do the women, who when young have noticeably round,

soft, full, smiling, and pleasing countenances. They have a tendency to stoutness, but never the grossness of the Samoan, and their necks are well set on their shoulders. Their breasts are large, but only get slightly pendulous after childbirth. The pelvis is conspicuously broad, and the legs are muscular. After the age of thirty this appearance goes off, and at fifty they have sunken cheeks and eyes, shrunken breasts, and are often appallingly thin, while the men retain their good looks to the last, and, if anything, improve on their appearance as they grow older.

Here and there individuals could be picked out typical of Samoa and Tonga; but I have seen none, save direct descendants of Fijians, that had curly hair or any appearance approximating to that of the Melanesian. On the other hand, in features some come very near to the Chinese and Japanese, but they are always far more muscular and bigger in body. They more nearly approximate to the Gilbert islanders than any other people that I have seen, but the expression of their countenances is more open, bright, and less cunning.

In character they are gentle and kind to one another as well as to strangers. Their kindness and attention to all children is extraordinary. Nothing is too good for them or too much trouble to do. Castigation is unknown; their sole method of correction is by laughing and making fun of them. The old, as long as they don't get ill, are well taken care of, but if they were ill, were formerly much neglected and even allowed to die without any notice being taken of them. They are keenly sensitive to ridicule and sneering. The greatest punishment that can be inflicted is ridicule; I have seen natives slink into the bush to avoid such, when people were about to pass them. If they are telling a story or legend, the least sneer will stop them at once, or make them bring it to an abrupt close, and they cannot, as a rule, be induced to continue in the sneerer's presence. There is no mean with them; they like well and hate well. If a chief is liked, they will do whatever he wants without treating him with too much respect; if he is not, he will be treated with every mark of respect to his face, but as soon as he is gone will be laughed at, and nothing will be done. Fairness and justice in all dealings will be respected. Such a man they will not try to cheat; but if they are once cheated, they think themselves dishonoured until they have cheated their cheater still more in return.

They have the *faksoro*. If a man, say, wants a pig for a feast, he goes to another who has plenty and asks him for one. He cannot well refuse, but in his turn is entitled to ask for something at some future time. The custom, fortunately, is seldom abused. I was once asked for a sovereign in this way; I gave

it at once, and as the old man had been very good in telling me stories, did not intend to ask for a return. Shortly before I left he reminded me, and asked why did I buy a pig for a certain feast, which I gave, when I should have sent to him for one. I told him I wanted nothing, but shortly before I left received a fine Rotuman mat. Presents are seldom given now except some return is expected; real spontaneous generosity among themselves is quite unknown, but the beggar is never refused.

They are honest to a degree. If a man should pluck a cocoanut off another man's land, he will always tell him of it. The origin, I fear, of this is the superstition that if a person touches or eats the food of another, the other has the power to kill him, if he knows of it, by its means. As a rule they are good-tempered, but, when cross, get surly. Lying is a fine-art among them; they try to say what they think you would like, and thus I have accepted no legend from less than three sources. The people got to learn this as I roundly accused them of it, and one man who had told me, in company with another white man, a long story, came presumably deliberately to me the following day and told me he had made it up. On inquiry, too, I found out that such was really the case.

Morality cannot be judged by our laws. Till they were married they could do what they liked. After sixty years of missionary enterprise it is much the same. Indeed, the old men informed me that the stern laws and fines of the missionaries did no good, but really accentuated the evil. Then, they say, adultery was unknown, but now it is common with both sexes. They must have been, indeed, a really moral race, as prostitution for money or gifts was, according to all white men, quite unknown. The grosser forms of immorality were unheard of, and are looked upon with the greatest abhorrence.

Faith they had not; their own religion was founded merely on fear of the *atua*, who had to be propitiated; their good spirit was entirely neglected. Now their religion is founded merely on the fear of hell; it is continually preached, to the exclusion almost entirely of the love of God. They subscribe liberally to it, but this is due to vanity, and that alone. Among the Roman Catholics—in justice be it said—there are no subscriptions, and instances of single-mindedness are by no means rare. They were really a brave people, in war the two sides coming to pitched battles, and not merely depending on their cunning. They swim from infancy, and there is an instance on record of two men diving through the surf in a strong undercurrent and for over an hour supporting a white man. When he was at last picked up, they had to be themselves hauled into the boat,

both much bruised and absolutely exhausted. Ambition, jealousy, and miserliness, with the crimes that they give rise to, are practically unknown. The people are clever and sharp at learning anything, but have little inventive faculty. They show considerable skill in imitating any object, but the invention of any neat contrivance, however small, is out of the question. Their habits are cleanly in the extreme. Both sexes daily wash themselves all over with fresh water and soap. The women wash themselves, in addition, morning and evening in the sea. Formerly, they used a red earth, which lathers slightly with water. It was a not inconsiderable source of profit to the islet of Uea, where it is quite abundant. Bathing in public without the *kukuluga*, or *sulu*, round the waist is absolutely unheard of, and would be much looked down upon.

The people are generally very sociable, and do not care to do anything alone; thus they combine readily for fishing, planting, or feasting. Ordinarily after a meal of some sort in the morning the men go to the planting grounds, where they remain till about 3 p.m., when they come home, each with a couple of baskets of food, which they then proceed to cook. The women fetch the water from the wells, look after the children, and perhaps go fishing on the reef, or join together in the making of mats. Much of their time is spent in gossip. After the evening meal the old men very generally meet in one another's houses and talk or tell stories till the early hours, while the young play various games on the sand, when the moon is in its second and third quarters, but in the other quarters meet and sing or dance their own *maka* in each other's houses.

IV. DRESS, ORNAMENTS, AND TATTOOING.

The ordinary dress of the present day for all consists of a fathom of cloth of perhaps double width round the waist; it is termed the *kukaluga*. No native cloth is now known, but it is well remembered and stated to have been generally of a brown colour; it was called *uha* or *api*, probably names for different kinds. The bark of the young breadfruit tree was used for its manufacture, and also that of a species of hibiscus; the paper mulberry of Fiji may have been used, but I never saw any growing in the island, nor could the natives identify any other trees as fit for the purpose. The bark was stripped off and allowed to soak in water for some days, after which the green outer bark was removed by rubbing it with stones sharpened to an edge; the bark was laid flat on a piece of timber and then thus scraped down. A stone was given

me on the ship when leaving Rotuma, which, on inquiry of Rotumans in Fiji as to its use, was identified by one old man for this purpose; it was picked up after a storm on the beach. It is a piece of coral about 6 inches long by $2\frac{1}{2}$ broad and $1\frac{1}{2}$ thick. The one of its sides is rough and broad, and the other has been smoothed down to an edge, which is not in the centre, but about $\frac{1}{3}$ inch from one side of the thickness of the stone, and hence $1\frac{1}{3}$ inches from the other; the part bevelled is about $1\frac{1}{4}$ inches broad. Thus one side is nearly flat, while the other is bevelled away. The cloth next was beaten out, and stained with the juice of the *ifi* tree (*Inocarpus edulis*, Forsk). For the same purpose also turmeric, or *mena*, was used, but usually mixed with a stain produced by rubbing up the root of a tree (*pakou ura*, the root of the *pa'tou*) with lime. The first of these is yellow, and would give density, while the latter is purple, so that combined they would give a sort of brown colour.

Of the fibres of the hibiscus two kinds of dresses were plaited, the *taktakoi* and the *arumea*; their wear was not restricted to any particular class. The former has a plaited part about 4 inches wide, from which the fibres hang down for about 16 inches on each side, but over the unplaited part are no fibres ending freely. The *arumea* is similar, but, from the loose fibres over the plaited part, looks like the skin of some animal; its breadth should be about 16 inches, and at the edge it should not have any fringe longer than the loose fibres are left. The *taktakoi* was the ordinary dress of the man, and the *arumea* of the woman, but the latter was used by the man as well. Properly they were about a fathom in length. One end was placed in both sexes between the fork of the legs and brought up in front and held there while the remainder was coiled round the waist and fixed, the *taktakoi* being doubled along the middle. The outside bark of the tree was taken off fresh by a shell, and then the inside fibres were stripped off by hand. Next they were well dried, and split up into fine strands, and the dresses made. When they were finished, they were placed alternately day and night in the sun and the salt water to bleach, an operation taking three months, but giving a splendid white. The plaiting of the *taktakoi* was generally much the finer, as there was less of it to do. Both were very strong, and would last a lifetime. In the plaiting of the *arumea* the ends were simply left loose, or the strand cut off with a loose end, and the cut-off part used again to continue the same plait; it is exactly similar to a common Samoan dress.

Other dresses were only for use on particular occasions or by particular chiefs. Fine mats of large size were generally worn;

indeed, for marriages, burials and feasts they were the proper dress (see Sec. XVIII). One kind, the *tofua*, was 8–10 inches wide, made of a fine pandanus mat, and sufficiently long to go conveniently round the waist; it tied at the top, with a few plaited loose pieces of fibre. Below this it had a fringe 8–10 inches long, made of the ends of the pandanus leaves used in its manufacture, cut up in a zigzag manner; round the edges should be a trimming of feathers, but wool of English manufacture has now generally replaced these.

The hair was formerly always worn long by both the men and women, and hung down as a rule below the waist; it was, however, when working, often drawn up in a knot or cone on the top of the head. Over the whole of the body the hair was carefully eradicated, shaving being effected by means of sharpened shells; the beard was likewise removed, but generally, when the man became any age, allowed to grow equally long with the hair of the head. Sharks' teeth were used for cutting hair. Of the invention of combs in Rotuma I could find no trace, the few I saw being typical Samoan.

Of ornaments, chaplets, and necklets were the principal ones made of flowers and the bright yellow seeds of the *posoa*, *hata*, and *saaga* (*Pandanus* sps.?) strung together. No ornaments were worn in the ears, as the piercing of the lobes was not carried out till after the coming of the white man. A flower might, however, be worn above the ear, while more permanent ones for this purpose were made from the feathers of the *tavek* (boatswain) and other birds. Necklets of beads made out of whale's teeth were exceedingly valuable and only allowed to be worn by chiefs; the beads were sometimes round, but more often oval, with the ends somewhat flattened (Plate XXV, Figs. 2, 3, 4). They were generally buried with their possessor as constituting one of his most valuable possessions. English beads were very greatly prized. These whale's-tooth beads were the money of the old days, and were termed *lei*, while the name of any necklace is *tifui*; hence these necklaces were termed *tifui lei*.

A breastplate of pearl shell (Plate XXV, Fig. 1) was very generally worn by the chiefs; it was termed *tiaf hapa*. In general it was simply the ordinary shape of the shell with the rough outside part, the horny layer, taken off and smoothed

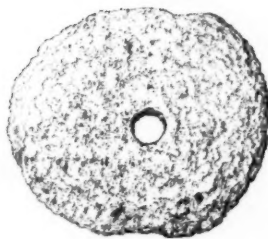
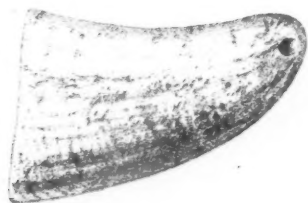
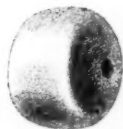
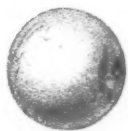
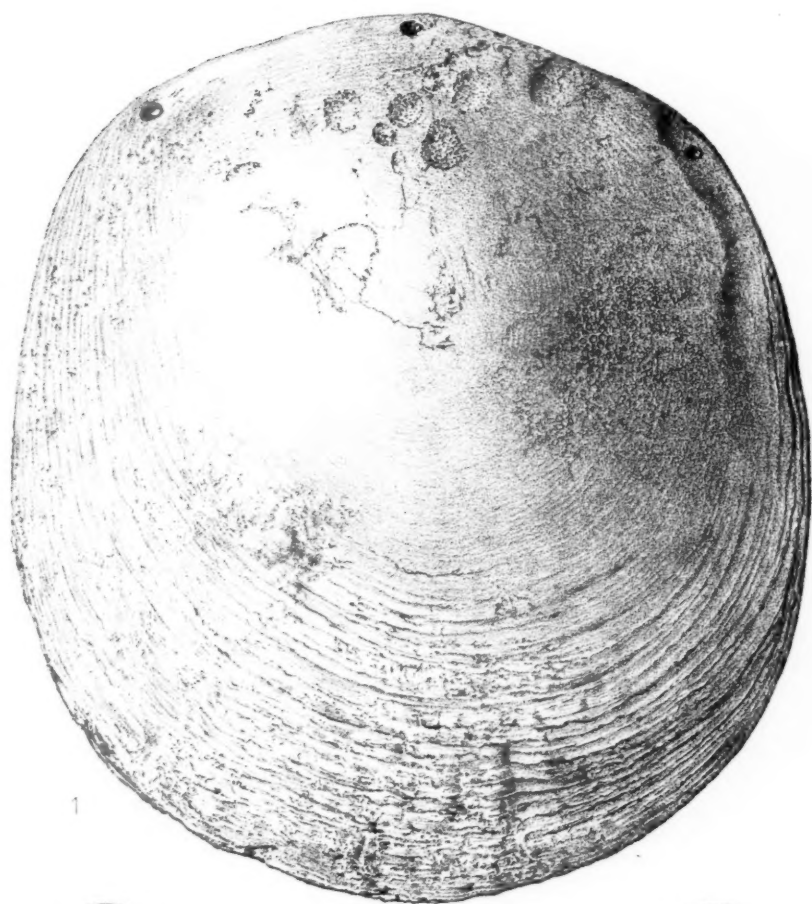
Explanation of Plate XXV.

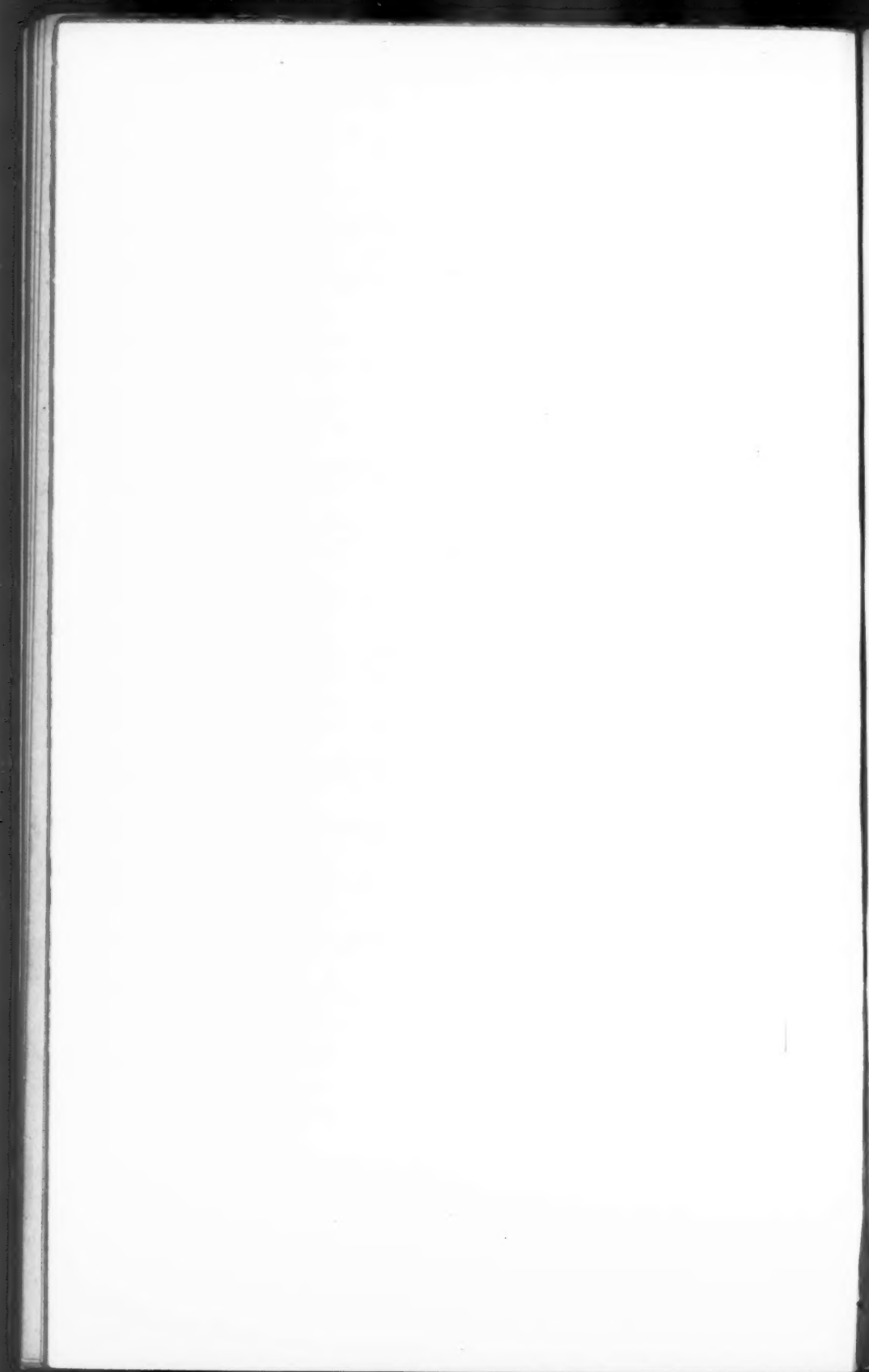
Fig. 1.—Pearl shell breastplate, or *tiaf papa*, by $\frac{1}{4}$.

Figs. 2, 3, 4, 5.—Whale's-tooth beads, or *lei*, by $\frac{3}{4}$.

Fig. 6.—Whale's-tooth charm, by $\frac{3}{4}$.

„ 7.—*Muleli*, by $\frac{3}{4}$.





down. Three holes were made near the hinge, and from these it was suspended on the upper part of the chest. The convex side was rubbed down till the outer coats were quite removed and the nacre was reached, and this side was hung outwards. One in my possession has not been nearly so much rubbed down, and seems to have been hung with the concave or inside outwards. They never seem to have been in any way cut down to represent a segment of a circle, as Duperrey represents them.

The only paint in use on the body was made from the turmeric plant, or *mena* (*Curcuma longa*, Linn.). The root of this is tuberous; when ripe, it is taken out of the ground, and left for one night. Then the skin is scraped off, and the tubers are washed in salt water. They are next ground up, or rather rolled, into a pulp with a thick round stick, called a *tama*, about 3 feet long and completely covered with cocoanut sinnet, after which the pulp is thrown into a bowl, or *umefe*, for one night. On the following day it is strained in a basket, with fern leaves round it, in water. The water is allowed to stand so that the grains may settle, and they are then similarly washed about three times. It is then re-strained, but this time into a canoe-shaped *umefe*, termed the *oipuuog*, and allowed to settle. The water is poured off, and the whole is churned up backwards and forwards in the *umefe* with fresh water, so that a scum forms. This is then carefully skimmed off and allowed to settle in an ordinary *umefe*. After it has settled, the water is poured off, and it is baked in a cocoanut shell, giving a fine orange-coloured powder. The part which has settled in the *oipuuog* is eaten, made into a *feki*, or pudding, called *tanua*.

The *mena*, when dried, was kept in a cocoanut shell, in the roof of the house. If a chief came into the house, some would be taken, and mixed with cocoanut oil in an *umefe puraagi mena*, and he would be smeared over the left breast with it. It was also used for smearing the bodies for dancing, and at a feast the mat dresses also were often completely covered. The heads of the *kava*-chewers, too, were generally thickly smeared, though lime to some extent subsequently took its place. I have one bowl used for the mixing with oil; it was stated to have been a chief's bowl. It is a bowl, cut out of a solid piece of wood about 10 inches long by 7 broad, somewhat oval, but pointed at the two ends. From one end a handle comes off underneath for 6 inches, and has a leg at its end, with, on the outside, a thin piece left projecting with a hole, through which a piece of sinnet was strung to hang it up by. The edges underneath are left $\frac{1}{6}$ inch high by $\frac{1}{4}$ inch broad, and wedge-shaped pieces every $\frac{1}{4}$ inch cut out. Two similar lines run

along and across the middle underneath, and on the latter line two more legs, $1\frac{1}{2}$ inches long, are situated. The workmanship, as in all Rotuman carpentry, is very poor, but the roughnesses have to some extent been smoothed by the shark's-skin file.

The purple stain, before mentioned, is used to smear the cheeks for dancing to give them a colour, and also for picking out some of the tattoo marks with, but the ordinary stain for the latter is made from the soot of the seeds of the *hifo* tree (*Calophyllum inophyllum*, Linn.), mixed with the oil of the same seeds. To extract the oil, the seeds are allowed simply to rot in a bowl, and the oil is then strained off. To the same oil, or cocoanut oil, sweet-smelling flowers are added to scent it, and the hair is plentifully smeared with it; the whole body, too, after fishing or any exposure to the salt water is smeared with oil.

The men were always tattooed with a pair of drawers, reaching from the waist to just below the knee; the name for this is *fuol*, but this is also the name of a bivalve shell found on the reef at Matusa, from which the pattern was supposed to be taken. The women, all the old men agreed in saying, never had this, though Duperry represents one with it; he represents

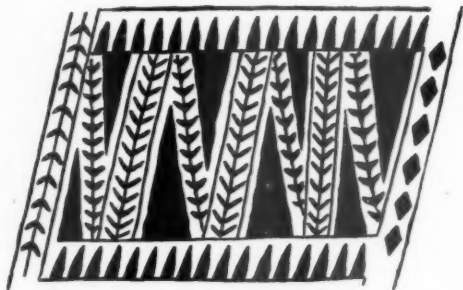


FIG. 1. TYPICAL TATTOO MARKING OF THE DRAWERS, OR *fuol*, BY $\frac{1}{4}$.

two lines of markings coming off free above the girdle line at the top, but these too I never found on the old men. The design at the knees is finished off likewise with one or more circular marks. Between, the surface is roughly divided up into parallelograms about 8 inches long by $3\frac{1}{2}$ inches broad, with dividing lines about $\frac{3}{4}$ inch broad. The whole design is in straight lines. Where the body is awkward for the design, the whole is such a mass of tattooing that no pattern can properly be distinguished. Fig. 1 is a typical design of a parallelogram taken from the right hip; the long diameter runs along down the thigh. The instruments used were made from turtle bone, with one to five teeth.

The *sas* consists of a number of marks on the shoulders and arms of the men. On the left shoulder, immediately above the armpit in front, is a design typical of a bush or flower of some sort. One design, the *moiera*, represents a bush, which is fairly common; it contains four lines, representing shoots, coming off from one point at angles of $22\frac{1}{2}^\circ$ with one another, thus making a right angle between the two shoots furthest apart; it has four leaves on each shoot always on the same side, represented by circles. Another design is the *perero* (Fig. 2), which is supposed to represent a strong-smelling flower which is commonly

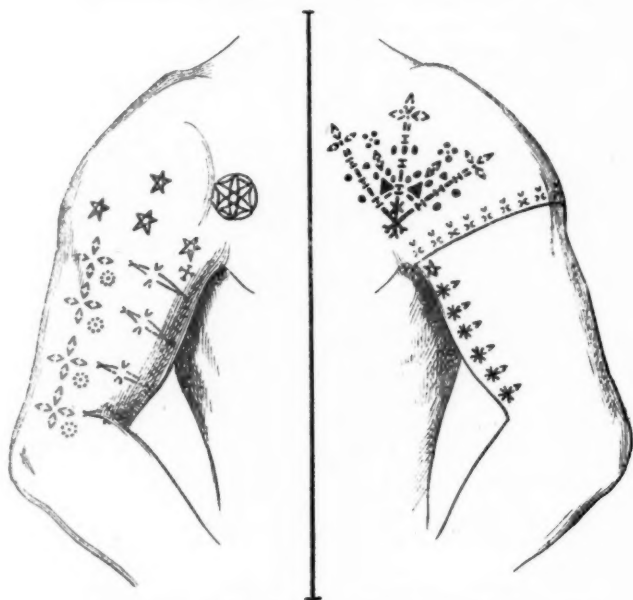


FIG. 2. TATTOO MARKINGS ON THE SHOULDERS, THE *sas*.

On the left shoulder is seen the *perero*.

given to one's *koiluga* (sweetheart). Other designs are stars, circles, etc., down as far as the elbow, more or less in series (Figs. 2, 3).

The woman's proper tattoo marks were three *suun* on each arm; these consist of three circles enclosing designs, which are always the same (Fig. 3). Besides these they have the *niglolo*, consisting of a diagonal mark along each joint of the fingers and a small blot on the hand below the base of the thumb between the palm and the wrist. Below the dress I do not think that there was ever any tattooing.

The old people claim to have had hats before the coming of the white men; they are of two kinds, the *fo peru*, of cocoanut leaves, and the *fo peru papoi*, of the bark of the *papoi* (*Cytosperma edulis*, Schott). A round block of wood is taken, and, if too small, made by means of leaves, tied on outside, to the requisite size; four pieces of bark or half cocoanut leaflets are crossed in the centre of the top, but sometimes there are four more placed over these. Then, while these are held firm, their ends are split up to the size it is desired to make the plait, and worked over and under one another. Similarly they are worked down the block and to make a broad brim, at the edge of which they are simply finished off by being turned back under the previous plait and cut off short. Very young cocoanut leaves are used and merely run over the fire twice through the flames; they are then dipped in salt water and dried in the sun, after which the midribs of the leaflets are cut out. The bark of the *papoi* is stripped off and then well scraped with the shells of



FIG. 3. TATTOO MARK OF THE WOMEN, OR *sum*, BY 3.

the *ess*, a kind of limpet common on the reef, and put into the sun to dry. The same night it is placed in the salt water and again on the following day dried, after which it has a night in fresh water. Hats of this are softer, more durable, and stand rain better than those made from cocoanut leaves.

The *ison* is an eyeshade, made of two half cocoanut leaves plaited together, and tied by the midribs behind the head. It is made of the green leaves when required, and has many designs. For an umbrella the leaves of the fan palm, or *fokmoro*, are used.

V. MATS, BASKETS, THATCH, AND SINNET.

The usual mats covering the floor of the house are the *farou*, which stretch from wall to wall across the house, and are about $2\frac{1}{2}$ feet in breadth. The cocoanut leaves are cut, when they are standing upright on the tree, before it bears any nuts; hence

moderately young leaves from young trees are taken. These are passed through the flames of a fire a few times, and left in the sun to dry. The leaflets then are tough, but not brittle. Two full leaves are taken and split down their midribs; the four half-midribs are then fined down, so as only to leave a thin attachment for the leaflets, and placed back to back two and two, the leaflets of the one leaf pointed in one direction, and those of the other in the opposite direction. The leaflets of one are then plaited outwards over and under those of the other. The two sides of the leaflets are bent together along the midribs, so that each leaflet, plaited, has a double thickness. The ends of the several leaflets are fixed by the edges, being plaited along their length; the half-leaves of the two sides are fixed together by the first plait of the leaflets of the other side, being taken alternately over and under their midribs. Precisely in the same way is made a common mat known as the *kakoi*, but the several leaflets are not doubled, but plaited flat. The *tatou* resembles the *farou*, but the first plait joining the half-cocoanut leaves together is omitted, and the midribs are on the outsides of the mat. The two halves are joined by the ends of the leaflets being plaited down together in the centre. This kind of mat was made only for the chiefs and their wives to sit upon and never used by the people.

Thatch for the roof and sides of the house is made of the half-leaves, every alternate leaflet being bent over in the opposite direction to that to which it naturally points, and plaited flat. The ends of the leaflets are left free. This kind is, if made of cocoanut, called *puara*, and lasts about a year, but if made of the sago palm it is termed *oat*, and will last up to ten years. For the ridge of the house two whole leaves are taken and laid on top of one another, with the leaflets in opposite directions; these are then worked in and out of one another in the same way. The midrib of the whole leaf is thinned down considerably, so that the two sides are only just joined; this kind is called *futafiti*, and is more commonly made of cocoanut leaves and renewed yearly. All kinds of thatch are made green and allowed to dry on the houses.

Of the baskets, the *ajarava* is made of the half of a green cocoanut leaf. A piece of *puara* is really made, and then the midrib bent round in a circle and the ends of the leaflets plaited along the bottom and up the open end, fixing the whole together. This kind is ordinarily made in the bush for carrying the food from the planting ground to the kitchen and then thrown in the oven. The *afmamaas* really is made, as it were, of one half of the *tatou*, in fact of two half cocoanut leaves plaited together, with the leaflets doubled and the midribs bent

round and fixed by the free ends of the cocoanut leaflets plaited along the bottom and up the open side, as in the last. This basket is used for taking out fishing on the reef, as it sits flat on the waist. A girdle is sometimes plaited of cocoanut leaflets to make a belt to hold it, but a piece of sinnet is more often used. The *tauga* is stated to be of Gilbert Island origin; it has round the edge the midribs of four half cocoanut leaves. The leaflets are doubled on themselves, and their outer, thinner part torn off, so as to make them still narrower. These are used mainly for bringing the cooked food from the kitchen to the dwelling-house, and to preserve the residue after the meal.

From the cocoanut also is made a broom, the *touferi*, of the midribs of the leaflets tied together, while torches are made of the sheath of the flower-bearing shoot of the cocoanut, the *sulu*. This, if split up, burns well, and will last for fifteen minutes or more in the wind.

The leaves of the *saaga*, a kind of pandanus, with rather narrow, light-coloured green leaves, very prickly edges, a central row of thorns along the middle of the under-surface, and branching freely with many roots, are used for making the finer kinds of mats. Of these the *epa* has about four strands to the inch, and is of a light colour. For it the old leaves are taken, and their thorns removed; they are then put into the sun to dry, and rolled up on the hands, when they are known as *takoieep*. They are next released, falling like curls, and hung

up thus for two weeks in the sun to dry, after which they are coiled up tight and fixed thus; they are now termed *aieoju*. When required, they are simply split up with the hands to the required breadths. Fig. 4 shows how a mat is begun at one corner; it is finished off simply by turning the ends back under the last plait and cutting them off short. Where required, fresh strands are introduced, their ends being left slightly projecting on the under-surface of the mat. These mats are of any size up to 4 yards long by 3 broad, and are ordinarily used for sitting upon, while the bed is made on the top of a pile of them. A

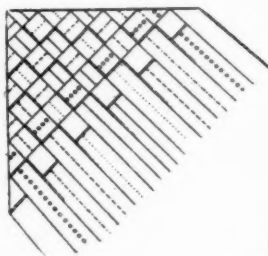


FIG. 4. DIAGRAM TO ILLUSTRATE THE COMMENCEMENT OF A MAT, SHOWING THE SEVERAL STRANDS MARKED BY LINES, DOTS, DASHES, &C.

coarse kind of the same, the *aap*, about 6 feet long by 3 broad, used to be made especially for sleeping on.

The young leaves of the *saaga* are used to make a finer mat, the *sala*, with about fourteen strands to the inch. The raw

material is worked into the mat in precisely the same way as the last. The young leaves are taken and passed through the flames, after which the central row of prickles on the under-surface is removed, and the whole coiled up for one night; then the under-surface of the leaf is torn off and thrown away. The whole is next tied up in a bundle and thrown into salt water for one night; then the leaves are separated and dried in the sun, but are tied up and put in fresh water for the following night. The loose tissue, adhering under the upper surface, is scraped off by a piece of shell, if requisite. For the purpose a piece of clam (*Tridacna*) or other shell is taken, 3 inches by 2, and flattened above and below. The sides are squared, and one edge bevelled (see Sec. XIII). After washing, the leaves are again coiled up on the hand, and hung up on sticks in the sand for about a fortnight to dry and bleach. The outside rows of prickles are then taken off, and the curls are left for one more day, after which they are rolled up tight like wheels. One leaf gives ten to twelve strands after being split up, for which fish bones are very generally used. Commonly the edges used to be decorated with feathers, and fringes of various kinds are left. These mats are used for burying the dead in, marriages, dresses for feasts, sleeping mats, etc.; their colour is very white, to preserve which they are constantly placed in the sun. They vary in size, a big one being 12 feet by 9. Very small ones also used to be made for carrying babies in.

For sinnet, or *uun*, there is a particular kind of cocoanut grown with very long nuts. When these are still green, but nearly ripe, they are soaked in the salt water for about three days, when they become quite soft; the fibre is then pulled out of the husk and beaten with a stick to separate it. It is next combed out with the hands and put out in the sun to dry, tied up in bundles. The separate fibres are 12–16 inches long. A few fibres are taken and rolled up together into a strand on the thigh with the palm of the hand. Three strands are plaited together and worked so that their ends occur at about equal intervals along the *uun*; they are fixed simply by pushing their ends between the other two strands. The form produced is flat and used for all ordinary purposes, tying the beams of the houses, fish lines and nets. Other kinds with two to ten strands are known, but stated by the natives themselves to have all been introduced from the Gilbert islands and elsewhere.

A cord, the *alol*, is made of the inner bark of the breadfruit tree, soaked in water and beaten out. The strands are always joined on to one another in one continuous whole, being simply twisted and rubbed together on the thigh. Usually three strands are taken and thus merely rolled up. *Alol* is very

white and strong, and, as it does not in any way spoil in salt water, the best fishing lines and nets are made of it.

Fans are made of the leaflets of the cocoanut doubled, with their handles formed by the midribs of the same leaflets. A special kind from the fan palm was made for chiefs and not allowed to be used by others.

VI. PLANTING, FOOD, AND COOKERY.

The chief vegetables cultivated for food are the *papule*, or taro (*Colocasia antiquorum*, Schott), *papoi* (*Cyrtosperma edulis*, Schott), *ouhi*, or yam (*Dioscorea ulata*, Linn.), and *pere*, or banana. Taro and bananas are usually planted on the steep hill-sides after the earth has been thoroughly dug up with flattened sticks or English spades; the tops of the taro and the shoots of the banana serve for planting. The Rotuman variety of taro does exceedingly well in such positions, growing very large, and is never planted in swamps. A kind, the *apia*, is common on waste lands and near the houses, but is not good for food. Of bananas seven kinds are known, but there are only practically two, the one for cooking and the other for eating raw. To ripen they are buried in the sand. The *papoi* is grown in swamps of brackish water and seldom dug except after a hurricane, when food is scarce. For yams the bush is roughly cleared. Rocky land is chosen, and its little existing earth is scraped together with the hands into heaps, in the top of which the yam is planted. After these were dug the land used formerly to be burnt off, the fallen timber by that time being thoroughly dry, and *kava* (*Macropiper methysticum*, Miq.) planted; now it is more frequently tobacco, pineapples, or sugar-cane. Planted, but in no way cultivated, are the breadfruit (*Artocarpus incisa*, Linn.) and the *niu*, or cocoanut, for food, *uta*, or sago (*Sagus vitiensis*, Wendl.), for thatch, and the *saaga* (*Pandanus* sp.?), for making mats. The food plants growing wild include the *ifi*, or Tahitian chestnut (*Inocarpus edulis*), *fava*, or *dawa* of Fiji (*Pometia pinnata*, Forst.), *mena*, or turmeric (*Curcuma longa*, Linn.), *mara*, or arrowroot (*Tacca pinnatifida*?), *asa*, or papaw, and the *hosoa* (*Pandanus odoratissimus*?). There is further the *hifo*, or *dilo*, of Fiji (*Calophyllum inophyllum*, Linn.), the oil from the seeds of which is regularly extracted. Of the above the taro, yam, and banana are the staple articles of food, and in such an equitable climate as that of Rotuma can be obtained at any season of the year. Arrowroot can be dug whenever it is desired. The breadfruit is season during October, November, and December, and cocoanuts can be obtained at any season in any condition of ripeness.

For animal food there are the reefs, which can always be fished at any time, and furnish a practically inexhaustible supply. Pigs are kept by all and fed regularly every day with ripe cocoanuts, the waste of the house, and the fruit of the papaw. Fowls are kept in the plantations, and have small low houses, fashioned of sticks and thatched; near each is a conch shell, by which they are called to receive their food daily; their eggs are seldom molested. To catch the wild chicken various traps are used, but all in principle consist of a bent stick, which, springing up, hangs the fowl by means of a piece of sinnet either by its neck or its legs. Wild pigs are sometimes caught by making a trench and covering the same over carefully with rotten sticks and earth. Dogs, *kanua*, are of a peculiarly coarse breed; their introduction is probably comparatively modern. The people say that they were never eaten because they always had plenty of pigs. In killing any animal for food great care was taken not to let it bleed in any way, a short club being used for pigs.

The men of the household, when they come down from the plantations, usually carry a couple of baskets of food or bunches of bananas over one shoulder on a stick. Between them they will have everything requisite, even down to the ripe cocoanuts to feed the pigs. Green cocoanuts for drinking purposes will have been all husked on a pointed stake, the *esoa*, and tied up in pairs, a small piece of the husk being left over the soft eye, so that they shall not go bad. At once the men set to work to make the fire and cook the food, an operation never performed for them by the women, who, however, serve the food to the men, when it is cooked, and then retire to their own meal. Fire was formerly produced by simply rubbing a piece of hard wood up and down in a groove in soft wood; the operation was termed *sia*. It would then be nursed and fanned into flame on a dry coconut husk. It was the business of the women always to keep a fire in, and in Noatau at least, I was informed by Marafu, fire could always be obtained from the *atuu*, or spirit, house.

In each house the chief man has usually a table, the *umeſe ataga*, a very slightly concave board, about 2 feet long by 1 foot broad, with four legs 3-4 inches high; it is carved out of a solid piece of wood. In addition to the above, a ridge, often notched and perhaps an inch high, is left down the middle of the under-surface, and on the same side, between two of the legs along the length of the table, a round piece about 3 inches long is left, with a hole in the centre, through which a piece of sinnet is strung, for hanging it up when not in use. On this a banana leaf is placed; the rest of the

men simply have their leaves on the ground. All sit with their legs crossed in front of them, with their knees touching the ground. The food is brought in in baskets by the women; the chief has a basket to himself, from which no one else is helped, while the rest eat several from the same basket and off the same leaf. The women place the food from the baskets in front of the men, and for the chief further peel the vegetables with their fingers and nails. It was formerly only a woman with the *niglolo* that would be entitled to do this. At the end of the meal they hand each man a green cocoanut, the only beverage drunk after the meal has begun, having with a piece of stick opened it by making a hole in the soft eye and having provided a cork, usually a piece of the husk, to prevent it from spilling. This done, the food left is gathered into baskets, and the women retire to another house for their own meal. Essential to the house is the *kokona*, which consists, as it were, of the four sides of a box, about $\frac{1}{2}$ inches deep and 2-3 feet square, with the bottom removed and replaced by netting; this is then suspended from the beams of the house, but the four pieces of sinnet from its four corners have generally first to pass through the middle of a flat board, the use of which is to prevent the small native rats from running down the sinnet and getting at the food. Its origin (see Sec. XXV, *e*) is legendary, and it is said to have come with the *moa*, or fowl.

Cooking is usually carried on in an especial house, the *kohea*, open at the ends and sides, low, and roughly put together. The only method is that of steaming in the native oven. A hole is made in the ground in the centre of the house and lined with stones; on the top of these a great fire of sticks is made. Everything being ready and the stones sufficiently hot, the fire is raked out, and a few green leaves are thrown on the stones. Then the food is placed on top and covered over with green leaves and finally with about 3 inches of earth. Most vegetables are put in exactly as they are, but pigs, fowls, and big fish are ripped open, cleaned, stuffed with cocoanut leaves, and placed in tightly fitting baskets of the same leaves to prevent them from burning. The liver is carefully wrapped up separately, as it is esteemed the greatest delicacy.

The green cocoanuts, after the milk has been drunk, are filled with salt water, and their holes stopped up with conical corks, made of the leaves of the *saaga* twisted up; they are then placed in the sun on small platforms for some days. A certain amount of fermentation takes place, and the soft kernel rots a little, so that a buttery mass, the *dahrolo*, is obtained; it is much used as a seasoning for puddings of different sorts and for cooking fish. No salt is ever collected, but this doubtless

acts as a substitute; almost daily some vegetables are cooked with it. Scraped cocoanut is another seasoning, the scraping being done on the *foa*. To make one of these a bough of a tree is selected with a branch going off at an angle of about 60° ; the bough is then scraped flat, 18 inches being left below the branch and 3 above. To the branch, cut off about 9 inches long, is firmly lashed underneath a suitable piece of shell (now iron), with the concavity upwards. The cocoanut is broken in half in its shell, and the kernel of each separate half scraped on this, the worker sitting crosswise on the flattened branch. One I saw still in use has a flat piece of pearl shell, with the edges notched. I have seen also a notched pearl-shell cocoanut scraper for use in the hand. Hollowed-out wooden bowls, *umefe*, are used for making the puddings in; they have no ornamentation, and have every conceivable simple form. All puddings are termed *feki*, but the term, if not qualified, would be taken as applying to one made of breadfruit, and the juice expressed out of scraped cocoanut; another favourite form is made of beaten arrowroot and cocoanut. Small fish are usually cooked with the *dahrolo*, when the dish is called *te lulu*; fowl, young taro leaves, and *dahrolo* are termed *iko*. All these are simply wrapped in the leaves of the banana or *papoi*, and after being tied up placed in the oven with the other food. Sometimes in them the juice of the sugar-cane is substituted for that of the cocoanut.

The *ranji* (*Dracaena terminalis*, in Fiji *gai* or *masawa*) grows plentifully in places and to a considerable size. It was, for some reason now apparently forgotten, strictly *ha*, or taboo, for any man to dig and cook it by himself. It was only dug by a whole district at a time, and then all took part. Each dug as much as he could in the day, and at night an enormous oven was made, in which a big fire was kept up all night, with singing and dancing. The roots of the *ranji* were then placed in at dawn and left for two days. Its taste is somewhat like liquorice, and its consistency is about the same, but it is very rarely cooked now, and little of the ceremony is kept up. The reason, according to Marafu, for the above was that the *ranji* was the food of the *atua*, and could only be eaten, when their priests gave leave.

When *rau*, tobacco, reached the island I could not discover, as even the oldest men remember it well; it is dried partially and then pressed into cakes in the *voi rau*, a kind of Spanish press. For smoking the native method is to wrap it up in banana leaves, which have dried after being drawn a few times through the flames to make them tough.

VII. THE "KAVA" CEREMONIAL.

Kava is never drunk during a meal or after, but always just before; it is proper after it, before commencing a feast, to eat a piece of pineapple or some other fruit. It used to be attended with considerable ceremonial.

With all the chiefs sitting round in a circle with the food laid out ready in front of them, the root of *kava*, unwashed and with all its leaves and shoots, is brought in and taken up to the biggest chief, who is properly sitting as near as possible in the middle of the long side of the house, which is nearest to the shore. Near the head chief is sitting a man termed the *mafui*, whose business it is really to direct the whole ceremonial and to call out each chief in his proper order for the *kava* to be handed to him. He now calls out, "*Kava!*" and after a few moments "*Monu!*" on which the *peskava* (or *kava*-cutter), usually the son of the giver of the feast, drives a sharp stick of hard wood into the root to break it up for the chewing. The root is then taken away, cut up, and thoroughly washed, while the *mafui* or some old man tells a story of the old times or whale-fishing. The chewing is now done by the old women, and the *kava* placed in the *tanoa*, or bowl, in small and fairly dry lumps. After sufficient is chewed, the *mafui* calls out, "*Solsito honi!*" an order to the head woman to wash her hands. After this is done, she calls out to another woman who has water in a cocoanut shell, "*Kosu,*" or "Pour on the water." The whole she then proceeds to knead up with her hands for some time; another woman then hands her the *nihou*, or strainer, with which she removes the woody fibres. The *nihou* is then handed to another woman, who washes it, while the kneader has water poured over her hands. The *nihou* is handed back to her, and she calls out, "*Kava ito te,*" or "The *kava* is ready;" the *mafui* answers, "*Kava tonia,*" on which the woman rinses the *nihou* several times into the *ipu*, or cocoanut-shell bowl, until it is full. The *mafui* then calls out to each chief in turn, "*Tou kava Marafu*"—"Give the *kava* to Marafu"—strictly in accordance with their rank on the island, derived from their names, and not position. The man who has had the direction of preparing the feast then, bending, carries the *kava* to the chiefs in turn.

At a really big feast in the old days each chief would have a separate root of *kava*, and each would have his own *peskava*. The *kava* is always made very strong, and only one bowl is as a rule drunk; the women are fond of chewing it, and on the Government forbidding it to women with child they were

petitioned so strongly against it by the women themselves, on the ground that their teeth were going bad, that they had to remove the restriction.

The *tanoa* is a round bowl, with four legs; it is properly about 10 inches in diameter, and the hollowed-out basin between the legs should almost touch the ground. The *nihou* is made of the beaten-out bark of the *fou* (*Hibiscus* sp.?) dried, and tied up together. The *ipu* is simply a half-cocoonut shell; small nuts are chosen for the purpose, since the *kava* is made very strong.

VIII. HOOKS, NETS, AND FISHING.

The fish-hooks of Rotuma were generally very crude. Indeed, the extent of the reef is so great that, except by isolated villages, little deep-sea fishing was carried on. The *fe*, or shark-hook, was made from a shrub, the *tiere*, which, when it reached the height of about 3 feet, was twisted into an open knot, with a diameter of about 5 inches; it was then allowed to grow for about two years before being cut. The hook was then shaped, and a piece of hard wood spliced on as a barb projecting inwards. The bait was tied on over the barb; the fish working at this, as the wood was springy, gradually got its jaw between the barb and the stem of the hook. On being struck the barb caught in the gills, and the fish was hauled up sideways. A similar hook, but smaller, the *oiniafa*, was used for catching a large species of rock cod, the *roog*. Small round hooks were cut out of pearl shell or turtle bone, 1-2 inches in diameter, and termed *ovi*; a barb was always cut on the outside. Those of pearl shell for certain fish were not baited, nor towed behind the canoe. Proper spinning baits are termed *pa*, and were of two kinds, the one large, of pearl shell fixed on bone 4 inches, or more, long, and the other small, 1-2 inches, of pearl shell alone. Both had underneath a hook of turtle shell or bone, and at the end a few short white feathers of the *tavek*, or boatswain bird, sticking out. *Tijja*, long fish with very narrow jaws, almost too small for any hook, are caught by a lump of spider's web at the end of a line on a long bamboo, when the tide is coming in. The teeth are numerous and long, and cannot disentangle themselves.

The mesh of nets is exactly the same as the English mesh. Hand-nets, like landing nets, called *ti*, are of rather oval shape, with a strongly spliced frame. They are used for catching lobsters on the reef at night or flying fish, attracted by a torch on a canoe. The latter fish used to be regularly attracted by large fires on certain islets of the reef.

To catch small fish, the women collect the loose pieces of coral and stones of the shallow water of the boat channel of the reef, and form heaps of them about 9 feet long by 3 broad and 2 high. At low tide they are covered by from a few inches to 2 feet of water. These they visit daily and feed with cocoanut, scraped up and mixed with a little of the ink of the cuttlefish, which is commonly caught in holes on the reef. At some part of the stone heap a fish basket, the *afuli*, may be placed; this trap is usually circular in form, about $1\frac{1}{2}$ feet in diameter, and 8 inches high. It is made of any shoots and twigs of suitable size and the midribs of cocoanut leaves; the mouth is in the middle of one of the flat sides, and the fish of course cannot escape, owing to the ends of the frame projecting inwards; the whole is bound together by pieces of the bark of the *fou* (*Hibiscus* sp.?). Ordinarily for fishing in the stone heap a large basket, the *afmamass*, is partially filled with loose pieces of coral and placed flat with its mouth in the stone heap at one end. The stones are then moved back one by one from the other end, the fish being driven back more and more from stone to stone, until finally all take refuge in the basket, which is then emptied of its stones, and the fish, prawns, and crabs left; the fish are then slipped into another *afmamass*, tied to the waist, and a fresh heap will be worked over. Sometimes instead of the basket a net, *vou hulaghui*, with floats above and weights below, may be placed round the stone heap, but this is more commonly used for placing round any large overhanging coral head, from under which the fish are driven by a stick. The usual method of killing them, when they have entangled themselves in the net, is to place the mouth under the water and bite them just behind the head. A throwing net, *vou kiri*, 6–8 fathoms long and a fathom deep, weighted at the bottom with shells and with floats of wood above, if cast well, falls in a complete circle and surrounds the fish. It is used principally at high tide, when the fish come on the reef in great shoals and close up to the shore.

For turtle a net, the *vou hoi*, of very strong sinnet, with a mesh of about 6 inches, is used. It is put down in a passage on the reef just before the tide commences to ebb, and any turtle that may be on the reef driven into it by canoes. Two canoes remain one at each end of it; and when any turtle is seen to go in, a man from each dives after it and seizing it by means of its front flappers, turns it over so that it is compelled to come to the surface; they then call "*Koko urofi*," a phrase confined to this fishing.

A large net, *vou hapa*, is made for fish-driving, with about an inch mesh; it is always made of *alol*. To make one a

whole district will combine, and each household will have its allotted share. The net has a great pocket in the middle, about 12 feet in circumference, open at its ends; it is about 25 yards long, and tapers somewhat. From it two wings come out, 80-100 yards long by about 6 feet deep. A suitable spot is chosen inside the reef either at one of its larger passages, or between two islets, and here two rows of stones are placed at about a right angle with each other; their length varies, but if possible they end in water not more than a couple of feet deep at low tide. At the angle they do not join, but run parallel to one another, about 4 feet apart, so that the pocket of the net can be fixed between them, while the sides of the net run along the two lines of stones. The net is held down by the stones below, and supported upright by stakes driven in between them.

At Noatau the point, selected to drive to, is in a big passage in the reef, and to here the lines of stones run from the reef and at right angles to this from the shore. The net is put down at quarter-ebb and firmly fixed under the direction of an elected chief of the fishermen; at half-ebb the Noatau people come up and range themselves along the lines of stones, and continue these to the shore and reef with canoes or in the water. When this is done a signal is given, and the Oinafa people form a line right across from the shore to the reef close to their village and commence to drive down. As they come up the ends of the net will be carried round and closed in. It will now be about an hour before low tide. Lot after lot of fish will be driven into the pocket, and removed into the canoes. Any fish speared or caught outside the net is the property of the one who catches it, while the rest are equitably distributed through both the districts after a division between the two has been made on the islet of Husela, off Noatau; for, if brought on shore, the fish would all be the property of the Noatau people. In one drive we obtained, with about 200 people, 648 large fish of different kinds in the net, and estimated weight at rather over $1\frac{1}{2}$ tons. They were laid out on the ground in tens and then again in groups of ten of these, each ten of about the same size.

The first time the *vou hapa* is used it is termed the *hou i ug vou*, or "the wetting of the net," and the second time the *fu i ug vou*, or "the hauling of the net." The fish caught in these hauls are all cooked together, and a feast is held; subsequently the net will be lent to any part of the district which desires to use it, or to any other district for the half of the fish it catches. Any *noh*, *sagir*, turtle, or sharks caught belong to the chief; any one eating them without his leave would get sick and probably die, did they not *faksoro* him.

A particular net, the *rou siu*, is used for catching the *siu*, a long, very strong fish, which will jump any net. The net is about 12 feet long by 6 broad, and fixed between and at the ends of two bamboos, 18 or 20 feet long. A number of canoes paddle along on the reef, when the tide is high, in two lines, with a man, the *toko*, on the watch at the head of each. When the *siu* are sighted, which is usually near the shore, every one jumps into the water. While some surround them with a net, the others get these ready to catch them, when they proceed to jump the net. If the party fishing is large with several canoes, this fishing is termed *rou roa*.

IX. DISTRICTS AND THEIR GOVERNMENT.

The island was formerly sharply divided up into five districts, Noatau to the east, Faguta to the south, Itoteu to the west, and to the north Malaha and Oinafa. The first division made was, according to legendary accounts, between Itoteu and the rest of the island to put an end to the disputes of two kings, who claimed dominion over the whole. A chief for the purpose came from Hatana, but on the night previous to the day, fixed for the division, his daughters made along this line a good road, which he found easy to traverse, and thus made the division. Later Itomotu (the part cut off) was separated from Itoteu, leaving a part to the west still belonging to Itoteu, but completely separated from it by the new district. Here in Itoteu the large village of Losa is situated; it owns the two islands to the west, Hatana and Hoflewa, which are regularly hunted for the eggs of two species of *Anous*, while Uea belongs to Itomotu. Faguta was divided into two districts, Pepji and Juju, by the other districts after a successful war, to weaken the power of its chief.

Each district has a chief of its own, the *gagaja*, but the chiefs of Noatau and Faguta were the most important and practically ruled over the north and south sides of the island. The government of the whole island was in the hands of a council, formed of the chiefs of the several districts, when they were not at war with one another. The president of this council was the chief of whichever of these two districts, Noatau and Faguta, had conquered the other in the last war; he was called the *fakpure*. The office of *gagaja* in each district always remained in the same family; when one died the heads of the families, or *hoag*, in the district met together and proceeded to elect the most worthy of the same *hoag* to the office. The *hoag* then met, and invariably conferred on him the family name; he would be generally the brother, son of an elder brother, or son of the last

chief. It was not usual to confer it on children, but cases are remembered, when there was no suitable near male relation; an old man of the district was then usually elected too, from some other important *hoag*, to act as deputy, the real chief not acting as a rule till his deputy died. If it was desired to depose a chief, it was a difficult matter, if his *hoag* did not meet first and take away from him the family name. There was a virtue in this name, and, if the family would not give the name to the newly elected chief, it was doubtful if the district in the old days would venture to appoint him. Marafu was the name of the chief of Noatau. The present one informed me that there was a contest about his grandfather (possibly granduncle), and that the district gave way to the family. The name in Faguta was Riemkou. After the division of this district into Pepji and Juju, the chief of one was Riemkou and of the other some near relation of his. In some districts, chiefs from other families have been made by their conquerors in war, and any family which has once had the chieftainship claims the right, so that it is hard to find out to which family it properly belonged. The *gagaja* was generally installed on the first day of the new moon. Presents of food had to be brought him by the whole district, and the *kava*, after bowls had been poured out to the *atua* and dead chiefs, was first handed to him, to be by him poured out to the last chief, whose spirit then entered him.

The districts were subdivided into *hoag*, a name applied to all the houses of a family, which were placed together, forming, if the family was a large one, a small village; it is also applied to the family itself. Each of these *hoag* had a name, which was conferred on one member of the *hoag*, who was invariably *ipso facto* its head, or *pure*. If too young or inexperienced for the post, as with the *gagaja*, a deputy was appointed. In most cases, however, the name was given to a brother of the last *pure* or its oldest member of pure descent, the husband of one of its women not being appointed its *pure* or given its name. From the name to some extent the *hoag* took its position or rank. *Kava* was called to the men in a very definite order, according to the rank of their names. Usually the chief of the district had the name, which was the first in his own district to be called, but, in any feast of his own district or of the whole island, Tokaniua of Oinafa was always called first, though his family, as far as I could ascertain, never held the office of *gagaja* in any district. Marafu told me too that *kava* would be called to Tokaniua before any dead chiefs, with the sole exception of Rahou (Sec. XXV, a); the next name to be called was Marafu. Tokaniua (Sec. XXV, b), perhaps represents the original inhabitants of

the island, and Marafu the most important recorded addition to its population and whilom conquerors.

The name of one *hoag* in Noatau, situated at the most south-easterly point of the island, is Rotuma; it would be, on a straight course from Tonga with a south-east trade, the point first visited, and probably from this *hoag* the Tongans gave the name to the island. The *hoag* name is Tui Rotuma; *tui* in Rotuman means great in respect to size, but in Tongan king or chief. This will account for the mistake in the report of the Wilkes Expedition.¹ "The king of Rotuma was residing at the heathen village in Tongataboo, an individual of large stature, having the nose slightly arched. His attendants, however, from the same island were not distinguishable from the Tonga men around. He had been brought here by a whale-ship together with his numerous wives, and when questioned on the subject of his rank he manifested some diffidence." The latter was but natural, as the bearer of this name is only a very small chief; his numerous wives were probably women of his *hoag*, who had accompanied him, or *pro tempore* connections in Tonga.

The power of the *gagaja* in his district was not arbitrary; he was assisted by a council of the possessors of the *hoag* names, which might reverse any action of his. Conflicts between the chief and his council were rare so long as his decisions were in accordance with, and he did not infringe, the Rotuman customs. He was called upon to decide disputes about land between *hoag*, or within a *hoag*, if its *pure* could not settle it; disputes between individuals of different *hoag* were referred to him. He could call out the district for fish-driving, war, or any work in which all were interested, and had the power of fining any individuals who did not come. If the walls or paths of his district were in disrepair, he ordered out all the *hoag*, interested, to do the work; he had further to keep a watch to see that a proper number of cocoanut trees were planted, and that all the *papoi* land was cultivated. Any one receiving the *hoag* name had to be recognised by him on their election before they could take it. As a set-off to these, he received to some extent first-fruits and a present of food from each of the parties to any suit, which might have been held before him in his district. Offences against the district were punished by fines of food, or by work for the good of the district in general; against individuals the work was done for, or the food given to, the injured party. In cases of adultery the injured individual had the right of club law, and the friends of the injurer could not retaliate by the same, or they would come under the punishment

¹ "The Races of Men," Chas. Pickering, 1849, p. 99.

of the whole district, and death, by being set afloat in an open canoe without paddles, was the penalty. There is an account, though, of one offender being kept for a long time at the bottom of a cave, 80 feet deep, from which exit was quite impossible. Extremities like this were very rarely resorted to, a big *faksoro*, or present, to the injured party usually settling the affair. A root of *kava* was offered first, and if this was accepted, it was a sign that they were willing to settle the affair, and an amicable agreement as to the amount of the indemnity was usually arrived at. Disputes between districts were generally settled in the same way.

X. GRAVEYARDS.

In former days, it seemed to be the desire of the chiefs to be buried on the tops of the highest hills in their several districts, or on some conspicuous prominence into the sea. In the bush, graveyards are scattered everywhere, but most have no stones or monuments, and can only be found by the presence of foraminiferal beach sand, mixed with the earth. One such burial place near Halafa at the west end was on the steeply sloping side of a hill and completely overgrown with trees; there were here and there flat basaltic stones lying, a foot or more square. Round these perhaps could be traced an area of about 2 feet by 4 to some extent marked off by blocks of the more recent lava. The bodies were only covered with a few inches of soil, and the bones were completely rotten; the head was to be found directly under the basaltic block, and the position of the body seemed to have been originally a sitting one. Another such burial ground on the land slope of Sol Tia, in Noatau, showed no beach sand, the bodies being simply buried without order in the red volcanic earth; it was supposed to have been formed of the slain in a big battle between Noatau and Faguta.

On the tops of many hills and islets off the coast are platforms, built up at the sides, with graves marked out on the top. On the top of Sol Hof, the highest hill in Oinafa, is one such; the summit is a narrow ridge, on which at one end a platform has been built up about 30 feet long by 20 broad. Its walls vary in height up to 8 feet, and are built simply of the loose rough blocks of lava that are found in the vicinity. On the top, areas are marked out by flat stones, about 2 feet square by 3-4 inches thick. Six placed vertically enclose the grave, two at each side and one at each end, and project for about 8 inches above the general level. In the middle across and resting on them is another similar block, the same size. These are formed of a sand rock, which is only found on the beach

between tide marks, and which, while it is at first extremely friable, on exposure to the air gets very dense and hard. On opening these graves, the bodies were reached at a depth of about 3 feet; they were all recumbent, and there seemed to be layers of bodies, one on the top of the other. I could not make out any order in the arrangement. All I found within these areas seemed to be adult males, and heads and feet were often in close proximity. I pulled down the wall of the platform at one place, and found that the whole was filled in with beach sand; there were bones, however, right down to the volcanic soil. Outside these graves bodies seemed to have been buried without order, and there were the remains of men, women, and children, mixed up anyhow. Similar results attended excavations on a hill above Noatau and on the islets of Afaga and Solkopi, but the graves were not marked off so regularly on any of these burial grounds, and their stones were often larger. I would suggest that these were formed gradually, and, as more and more people were buried there, slowly built up to their present height. Perhaps the enclosed areas were for the owners of *hoag* names, and the rest were buried indiscriminately.

Most burials, during this century, of district chiefs have been in their own villages, in most of which close to the shore are very large artificial burial grounds, or *tamura*. In each district is one such enormous more or less rectangular burial ground, a mound of sand walled in by large rectangular blocks of beach sand rock or unshaped pieces of lava; their construction was apparently gradual, and similar to those on the tops of the hills. Their height varies up to as much as 16 feet, while they may be 30 yards or more square; some are terraced. Many are placed on prominent capes into the sea, and most are visible from it; those at Oinafa and Matusa are especially conspicuous. Their number is enormous, and there are very great variations in size and position, but a height of about 6 feet to start with, unless on some prominent raised point, seemed to me general. From these, the whole island of Rotuma was formerly known to sailors as the island of graves.

The chief priests, the *sou* and *mua* (Sec. XIV), were buried on the tops of the hills, and many *hoag* claim burial there. For this reason I think that most of these village *tamura* are of modern date, and that there has been a change of custom in this respect. Maftau, in Itomotu, has its graveyard on a conspicuous and bluff cape, about 60 feet above sea level. One gravestone is noticeably large, roughly rectangular, and about 2 feet thick; from its cubic feet I estimated that it weighed between five and six tons. The stone is basaltic, and must have been brought at least $\frac{1}{2}$ mile to its present position, as there is no

similar rock nearer. The old men of Maftau remember hearing from their fathers of the great feast that was prepared, after which it was dragged into its present position by sheer force of numbers.

The dead are now buried tied up in large mats, with sand round them; elaborate stones are sometimes put up. Certain carvings on some stones looked remarkable; I found later that they were copied from markings on crockery, after carefully, but unsuccessfully, digging up the stones in many of the old graveyards for traces of such. The use of these graveyards has now been entirely given up, and the people are buried in the English fashion.

XI. HOUSES AND THEIR FOUNDATIONS.

The house was in former days always placed on the top of a moderately high built-up foundation, or *fuagri*. Most of the modern foundations are about 3 feet high, a wall round filled in with earth, but there are scattered plentifully here and there old foundations up to 12 feet in height, formed of perpendicular walls of large blocks of stone on the outside, with in one place rough steep steps. The ground was in no case hollowed out to build these up. Two in the village of Noatau measure 93 feet by 39 by 10 high and 54 feet by 66 by 11 high; there is another at the south end of Noatau 13 feet high, quite square, with a terrace at 9 feet. In Oināfa is the large old *fuagri* of Tokaniua; it stands in the bush on the bare lava quite back from the village, and is somewhat irregular in shape. Generally through the bush are many isolated high foundations; usually around are smaller foundations, indicating a former centre of population. There are no signs but these of anything approaching a fort, unless graveyards were used for such too.

In the house (Fig. 5) six posts (*a*) are placed in two rows, about 6 feet apart from one another, while in the row they are 8 feet; they are about 7 feet high. About 6 inches below the top along the two rows on their outer sides are lashed with sinnet two beams (*b*). Across these and resting on their two ends outside the two pairs of outer posts are lashed two more beams, with two more one on each side of the centre pair (*c*). A flat beam rests on the centre of these (*d*), and from it arise four posts (*e*) which support the ridge pole (*f*) of the house. On the projecting ends of the beams *c* lie two more beams (*g*), to which two of the long roof beams are ultimately lashed. All the above is exceedingly massive; few of the timbers are ever less than 6 inches thick. The beam *d* is dovetailed on to the beams *c*, and the posts are sunk at least

4 feet into the ground. Outside the two lines of posts are put two lines more of three each about 3 feet away (*h*), while five more at each end are placed in a crescent shape; they are about 4 feet high. Lashed outside these rest beams right round the house (*i*); the roof from these slopes up to the ridge pole, but there are usually two more sets of beams (*k*), the lowest lashed to the beam *g*. As the pitch of the roof is naturally given by the part below this, the ridge pole is the last part erected. The timbers of this outside part are much smaller.

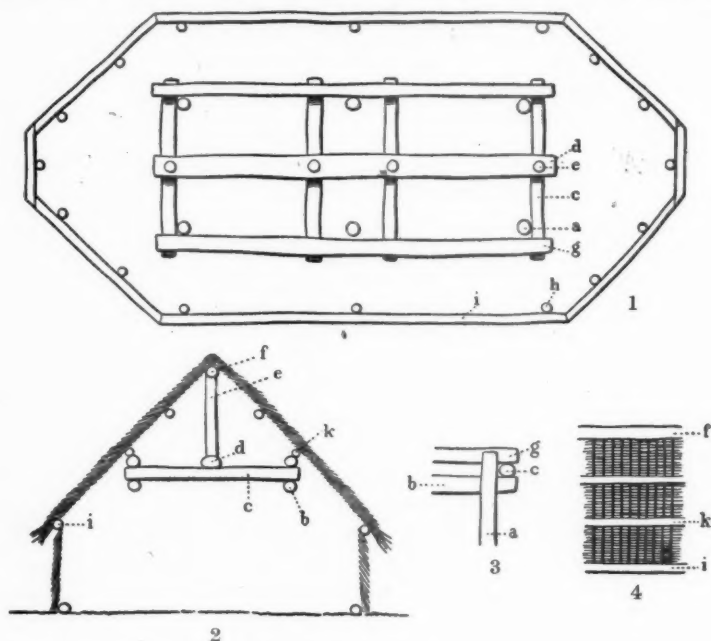


FIG. 5. THE HOUSE.

1. Ground plan of house. $\frac{1}{4}'' = 1'$.
2. Transverse section through house. $\frac{1}{4}'' = 1'$.
3. Corner of the central structure from inside.
4. Roof from inside.

Laths are lashed outside these beams up and down the roof, 3-4 inches apart. The framework at the ends of the house is carefully curved, and diminished up to the ends of the ridge pole. The thatch is made of the leaves of the *oat*, or sago palm. It is of two kinds: the *puara* and the *fatafiti*; the latter is used for the ridge, and the former for the roof and walls of the house, the separate pieces being lashed to the laths about 2 inches apart from one another. The roof is thus

thatched from below upwards; it overhangs the walls by a few inches only. There are two doors on each side and none at the ends. They are simply well-finished pieces of thatch strung together and suspended by sinnet to the beam above; to open they are simply pushed up from inside, but in the day-time are usually supported open by a stake. On each side of them is placed a post to prevent the walls from being broken down by people entering, and further to support the beams *i*. The walls, too, have additional supports as requisite under *i*. At their base right round the house beams are laid, giving a finish to the whole. The floor is covered with pieces of coral or water-worn pebbles, and these again with mats.

In the old days, one or both ends of the house were very generally curtained off by mats as sleeping-places, the walls being often lined with an extra thickness of thatch inside to keep out the *ramu*, or mosquito. Bamboos or sticks used commonly to be placed on the cross beams of the house to form sleeping-places, termed *fatafata*. The dimensions of the house given are taken from one on the island of Uea, where lime cannot be obtained, and these houses are always built. Many on Rotuma are larger, but are not as typical.

With the introduction of *sorui*, or lime, by the white man, houses began to be built with reed walls, plastered over, and thatch roofs; now houses are built of stone and plastered both inside and out. None, however, are as strong or stand a hurricane so well as the proper old house; its beams inside are of hard wood, and last practically for ever, while the storm passes lightly over its low-pitched roof and rounded gables.

Besides these houses for general use, the men had sleeping houses, *risi boki*, built on piles close to the sea, 50–80 feet high; they were mounted by means of a pole with notches cut in it for steps. They were occupied generally by the young men and boys to avoid the mosquitoes. There was, too, the *kohea*, or cook-house, a roughly constructed building, with open walls.

A necessary article in all houses is the *kuruga*, or pillow. Of these there is little variety, most of the true Rotuman ones very closely resembling the one represented in the figure.

(*To be continued.*)

DECEMBER 7TH, 1897.

E. W. BRABROOK, Esq., C.B., F.S.A., *President,*
in the Chair.

The Minutes of the last Meeting were read and signed.

Dr. GARSON exhibited some lantern slides representing Dyaks of Borneo, from photos presented to the Institute by H.H. the RANEE OF SARAWAK. He also read a letter from Mr. F. MOSS, British Resident at Rarotonga, Cook Island, dealing with the Morphology of the Natives.

A vote of thanks was passed to Mr. MOSS for his communication, to the RANEE OF SARAWAK for his present of photographs, and to Dr. GARSON for his able presentation of them to the Meeting.

Mr. O. M. DALTON then read a paper by Miss ALICE C. FLETCHER, of Harvard University, on the "Significance of the Scalp-Lock," and Mr. BALFOUR and Prof. TYLOR pointed out the importance of keeping record of such rapidly dying-out beliefs and customs.

A vote of thanks was passed to Miss FLETCHER and Mr. DALTON.

The SIGNIFICANCE of the SCALP-LOCK. A Study of an Omaha Ritual. By Miss ALICE C. FLETCHER.

A BRIEF account of the Omaha tribe and its social organization will render more intelligible the ceremony during which the first cutting of the hair of the child takes place.

The Omahas belong to the Siouan linguistic group, and live to-day where they have dwelt for several generations—on the western bank of the Missouri river, within the limits of the State of Nebraska.

The tribe is composed of ten kinship groups (or gentes), bearing the common name *Ton'-won-gdhon*, which means "a place of dwellings." The families of a gens, *Ton'-won-gdhon*, pitched their tents in a particular order or form, which was that of a nearly completed circle, an opening being left as entrance way into

the enclosed space. This encampment was called by the untranslatable word, *Hu'-dhu-ga*. When the entire tribe camped together, each of the ten *Ton'-won-gdhon*, while preserving its own internal order, opened its line of tents and became a segment of the greater tribal *Hu'-dhu-ga*, in which each *Ton'-won-gdhon* had its fixed unchangeable place, so that the opening of the tribal *Hu'-dhu-ga* was always between the same two *Ton'-won-gdhon*.

The Omaha word for tribe is *U-ki'-te*¹; the same word used as a verb signifies, to fight, to war against outside enemies; it would therefore appear that the necessity for mutual defence had impelled the various *Ton'-won-gdhon* to band themselves together for self-preservation.

The sense of danger has not only exercised a profound influence in the development of the social structure of the tribe, and given to the warrior a position of vital importance, but it seems to have been equally potent in stimulating the growth of religious observances, wherein the feeling of insecurity and dependence has sought relief in rites which were believed to be the medium through which supernatural aid could be transmitted to men. This belief of the Omahas was based upon their conceptions of nature and of life. They regarded all animate and inanimate forms, all phenomena as pervaded by a common life, which was continuous and similar to the will power they were conscious of in themselves. This mysterious power in all things they called, *Wa-kon'-da*, and through it all things were related to man, and to each other. In the idea of the continuity of life, a relation was maintained between the seen and the unseen, the dead and the living, and also between the fragment of anything and its entirety.

Perhaps the oldest religious practice known to the Omahas, was the *Non'-zhin-zhon*, or rite of the vision. In this rite, the man by fasting and the chanting of prayers, sought to fall into a trance, in which he should see some object, that for ever after would be his particular medium of help from the supernatural. The symbol of this manifestation—which might be the feather of the bird, a tuft of hair from the animal, the small black stone, emblematic of thunder, or the pebble, representative of water—the man ever after carried with him, not as an object of worship, but rather as a credential, so to speak, as the fragment, to connect him with the whole power represented by the form which had appeared in his vision.

¹ The vowels have the continental sound; *n*=the nasal *n*; *h*=the rough guttural sound *h*; *k*=a sound between *g* and *k*; *t*=a sound between *d* and *t*; *i*=*e* in *eve*; *š*=*š* in *mät*.

This rite seems to have been always open to anyone, and its universal practice kept rooted in the mind of the people their peculiar belief concerning nature and life. The constructive force which lay in the ideas upon which this rite of the vision was based, is manifest in two powerful organizations which have grown out of it, and which have been largely instrumental in moulding the tribe; I refer to the religious societies, and to the *Ton'-won-gdhon*.

The religious societies were composed of men who had become affiliated into a sort of brotherhood, on the basis of like visions. Those to whom the bear had appeared, formed the bear society; and those to whom the beings of the water or the thunder came, constituted the membership of the pebble, or, the thunder society. There is reason to regard these societies as the earliest form of organization known to the group of tribes which included the Omahas; they had a classification of membership, initiatory rites, rituals, and ceremonially appointed officials, and they exercised a power which transcended that of the ties of blood.

The *Ton'-won-gdhon*—or *gentes*, as they will be called for convenience' sake—were kinship groups, practising exogamy, and tracing descent through one parent only—the father. Each gens had a distinctive name, which referred to its totem,—the special manifestation of *wa-kon'-da*, which had appeared to the founder of the gens in his vision, and which his descendants held sacred by the tabu. There was also a set of personal names, one of which was bestowed upon each child born within the gens. These names referred directly or symbolically to the totem, and were called "*ni'-ki-e*," spoken by a chief, that is by the founder of the gens.

There is evidence that in the slow process of time, both disintegration and coalescing have taken place among the societies and *gentes*, until the totems of those that remain represent the elements and forces conceived to be most potent in the life of man, or those animals which largely contributed to his support, or were most difficult to conquer.

The functions of the *gentes* in the tribe were determined by the nature of their totems, for instance, the buffalo *gentes* regulated the quest of food—the planting of corn, and the hunt—while the thunder people dominated in the rites and ceremonies of the tribe.

The entrance to the tribal circle, or *Hu'-dhu-ga*, was guarded on the right as you enter, by the thunder gens, and on the left by the elk people, who were the keepers of the sacred tent of war, in which the worship of thunder was performed, as well as all the rites pertaining to war, of which thunder was the god, so

to speak. The commanding position of these two gentes, between which every one must pass who would enter the tribal circle, was typical of the all-embracing power conceded to thunder, which held in check not only all enemies from without, but was co-ordinated with the power of the chiefs within the tribe, and which met each child at its entrance into life, and controlled him even to the hour of his death.

It was the hereditary right of the *In-shta'-thun-da*, or thunder gens, to perform the ceremony at the first cutting of the hair of the Omaha child. This was done by a priest of the *Wa-she'-ton* division of the *In-shta'-thun-da*, which means "the quivering eye" (*in-shta*, eye, and *thun-da*, probably a corruption of *thon-da*, to tremble; *thon-da* is always used with a prefix which indicates the exciting cause of the quivering); it is a descriptive symbolic term referring to the flashing lightning. *Wa-she'-ton*, the name of the sub-division having charge of the rite under consideration, refers directly to this rite. The prefix *wa*, denotes action with a purpose; *she*, is from *shi-e*, a generic term for children, as, *shi-e a-dhin-ki-dhe*, to beget children, and, *shi-e-gi-dhe*, to adopt children; *ton*, to become possessed of; the word *Wa-she'-ton*, therefore, means the act of possessing children. In the rite performed by this sub-division, the child passes out of the simple relation it bears to its parents and is adopted by the thunder god, and at the same time is reborn into the tribe, becoming an acknowledged member.

Before giving the ritual of this ceremony, a word of explanation is due as to its fragmentary nature and the manner of its recovery.

During the year 1896, my collaborator, Mr. Francis La Flesche, a member of the Omaha tribe, spent several weeks in ethnological research among these Indians, and was so fortunate as to secure valuable graphophone records of rituals hitherto unknown and unsuspected. In the case of the ritual of the rite of the first cutting of the hair, the hereditary priesthood had become extinct by death, but Mr. La Flesche was able to procure six fragments of the ritual from the only man living who had any memory of it. He was a man of some sixty years of age, of undoubted veracity, a near relative of the last priest, and an old and trusted friend of Mr. La Flesche's father, the former head chief of the tribe.

The ritual is rendered in musically independent songs, each having its motive, its modified variation, melodic phrase, clause and period. The scale in which the music has been transcribed, was determined by the graphophone records. Other singers might pitch the tune on a different key, but that would not

alter the relation of the intervals to each other, and a minor song would still be minor, and a major song retain its major quality. As music is a more flexible vehicle than language, it adapts itself more readily to the emotions, so that a study of the music helps to an understanding of the rite.

After the first thunder in the spring-time, when the grass was well up, the birds singing—"particularly the meadow lark"—the tribal herald went forth to proclaim that the time for the ceremony had come. The priest summoned the Wa-she'-ton to the vicinity of the lodge which had been erected for the ceremony, and had now become hu-be, or sacred. Meanwhile those parents whose children had arrived at the proper age, that is, were able to walk steadily and to go about alone, made ready to take their little ones to the sacred lodge. The only requisite for the child was a pair of new moccasins, which were generally embroidered for the occasion; but large gifts were demanded as fees by the priest.

The mother accompanied the child to the door of the sacred lodge, where she paused, saying, "Venerable man! I desire my child to wear moccasins;" and the little one carrying his moccasins, entered the lodge alone. He was met by the priest, who advanced to the door to receive the gifts brought as fees for the ceremony. Here he was addressed by the parent, who said, "I desire my child to walk long upon the earth; I desire him to be satisfied with much food; I desire him to be content with the sight of many days; we seek your protection; we hold to you for strength." To which the priest replied, addressing the child, "You shall reach the fourth hill sighing; you shall be bowed over; you shall have wrinkles; your staff shall bend under your weight; I speak to you that you may be strong." Laying his hand upon the shoulder of the child he added, "What you have brought me, shall not be lost to you; you shall live long and enjoy many possessions; your eyes shall be satisfied with many good things." Then moving with the child toward the fireplace in the centre of the lodge, he continued, "I am a powerful being, I move my lips over you." (He sings an invocation; Song No. 1.)

SONG No. 1.



Du-ba ha ti . . non-zhin a, she non-zhin ga . . .



Du-ba ha ti non-zhin ga . . .



She non-zhin ga . . She non-zhin ga . . In . . . In . . .

Translation:—

Come hither, and stand ye !
Stand ye near, in four groups ;
In four groups stand ye ;
Come hither, and stand ye
In four groups, in this place.
(*The Thunder Rolls.*)

Literal rendering.—Du-ba, four ; ha, signifies that the number refers to groups ; ti, from a-ti, come ye ; non-zhin, stand ; a, from i-ga, the word of command addressed to a number ; she, from she-dhu, a definite place near by ; ga, a command and end of the sentence ; in ! imitation of the rolling thunder.

The music of this invocation lies along the line of the five-tone scale in F sharp major. It is noticeable that the voice dwells on the words, "ti," "come," and "she, near in this place." The roll of the thunder is given in the relative minor.

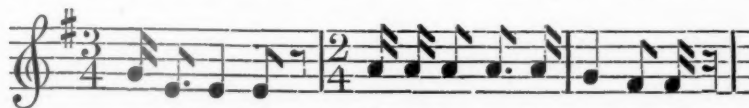
There has probably been something of the ritual lost at this point.

During the singing of the next song in our possession, the child stands between the knees of the priest, who gathers up a tuft of hair from the crown of his head, ties, and cuts it off, and lays it away in a *par-fleche* case, kept by the priest as a sacred thing.

SONG No. 2.



Ti-gon-ha mon-shi - a ta ha ! Sha-be . . . ti-dhe . .



non-zhi - a . . ha.

Ti-gon-ha, mon-shi - a ta ha !

Sha-be... ti-dhe... non-zhi-a she-dhu aha.

Ti-gon-ha mon-shi-a ta ha! Sha-be... ti-dhe...

non-zhi-a Ti-gon-ha mon-shi-a ta ha!

Sha-be... ti-dhe... non-zhi-a ha she-dhu aha.

Ti-gon-ha mon-shi-a ta ha!

Sha-be... ti-dhe... non-zhi-a ha.

Translation:—

Grandfather! there, far above, on high,
 The hair, like a shadow dark flashes before you;
 Grandfather! there, far above, on high,
 Dark like a shadow, the hair sweeps before you
 Into the midst of your realm.
 Grandfather! there, far above, on high,
 The hair, like a shadow dark flashes before you;
 Grandfather! there, far above, on high,
 Dark like a shadow, the hair sweeps before you
 Into the midst of your realm.
 Grandfather! there, far above, on high,
 The hair, like a shadow dark flashes before you!

Literal rendering.—Ti-gon'-ha, grandfather, the form used when addressing the person; mon'-shi-a, far above on high; ta, from e-ti there, used to express an indefinite place; ha, end of the sentence; sha-be, dark

like a shadow ; ti-dhe, passing before one ; non-zhi'-a, human hair ; she-dhu, there, in your direction ; a-ha, in the midst of.

From the ritual we learn that the hair which is laid away in the sacred case, in care of the thunder priest, really goes to the thunder god, dwelling "far above, on high," who is addressed as "grandfather," the term of highest respect in the language. The hair was believed to have a vital connection with the life of the body, so that any one becoming possessed of a portion of it, might work his will upon the man from whom it came. In ceremonial expressions of grief, the throwing of tufts of hair upon the dead, and the laceration of the body (shedding the blood) were equal expressions of the vital loss sustained. The hair might be said, in the light of the customs of the people, to typify life ; in this rite the life of the child is placed in the hands of the god, through the severance of the lock of hair and its transmission to thunder ; thus illustrating the Indian's belief in such a continuity of life, as that a part must represent the whole. The sign of this consecration seems to have been a small lock on the crown, parted in a circle from the rest of a man's hair and kept constantly braided. Upon this lock the talisman and the war honours were worn by the warrior, and it was this lock which was cut from the head of a slain enemy, and formed the central object in the triumph ceremonies, for the reason that it pre-eminently represented the life of the man who had been killed in battle.

In the music of the song accompanying the specific act of cutting the hair, the melodic phrase passes through three related minor chords, indicating a range of related emotions. The long notes are those which carry the words, "Into the midst of your realm."

Again a break occurs in the ritual, and in the next song we have the thunder god speaking.

SONG NO. 3.

She-dhu pi dhoṇ-di he, Ni-ka, win gon ke a-dhe he,

She-dhu pi dhoṇ-di, Ni-ka win gon ke a-dhe,

2 G 2



Translation :—

What time I will, then, only then,
A man lies dead, a gruesome thing ;
What time I will, then suddenly
A man lies dead, a gruesome thing.
What time I will, then, only then,
The man a shadow dark shall lie.
What time I will, then suddenly
A man lies dead, a gruesome thing.
What time I will, then, only then,
Reddened and stark, a man lies dead.
What time I will, then suddenly
A man lies dead, a gruesome thing.

Literal rendering.—She-dhu, there ; pi, I have been ; dhon-di, when ; he, end of the sentence and vowel prolongation ; ni-ka, man ; win, a or one ; gon-ke, a fearful or horrible sight ; a-dhe, I cause, used only in reference to inanimate things and intended here to convey the idea that man has no power to act independently of the gods ; sha-be, dark like a shadow ; zhi-de, red.

The word "sha-be," dark like a shadow, is used in the preceding song, No. 2 of the series, to describe the lock of hair, symbolic of life, which is cut from the child and offered to the thunder god. In the responsive song of the god, No. 3, the same word "sha-be" is applied to the man whose life has been taken by the god ; and we find that the musical phrase accompanying the words, "Sha-be ti-dhe non-zhi-a ha," (Dark

like a shadow the hair sweeps before you), in Song No. 2, is repeated, in No. 3, to the words, "Ni-ka win sha-be ke a-dhe he," (The man a shadow dark shall lie). A connection seems evident; the life is given to the god, and the god does with it as he will. There are other songs and ceremonies in the tribe, which iterate this belief; men die only when the gods decree.

The music of this song is in the five-tone scale of E flat minor, and the motive which carries the assertion of the god, rises and dwells upon the tonic, which is rare in Indian music, the general trend of the songs being from high to lower tones.

There is evidently a portion of the ritual missing before No. 4 of our series is reached. This song accompanied the special ceremony of putting the new moccasins upon the feet of the child.

SONG No. 4.

She-dhu te dhoṇ ī - ẽ win-dha - ke,

She-dhu te dhoṇ ī - ẽ win-dha-ke, He-de win-dha-ke non-zhiṇ, ga!

ī - ẽ te win-dha-ke, She-dhu te dhoṇ ī - ẽ win-dha-ke,

He-de win-dha-ke, non-zhiṇ, ga! In . . . In . . .

Translation :—

In this place has the truth been declared unto you,
 In this place has the truth been declared unto you ;
 And because of the truth here spoken to you,
 Now arise ! for a promise to you hath been given.
 In this place has the truth been declared unto you,
 Now therefore, arise ! go forth in its strength.

Literal rendering.—She-dhu, a place near, also a time; te, refers to an action or occurrence, in this instance, to the ceremony; dhon, a round place, refers both to the lodge and to the Hu'-dhu-ga; i-è, words, declaration; win-dha-ke, win-ke, truth, dha, to you; he-de, in consequence of, therefore, because (an old term); non-zhin, arise, stand; ga, the sign of command; in! the rolling of thunder.

Concerning the truth said to have been declared, a part at least has been preserved to us in Song No. 3; it is that the life of a man, who must become a part of the cordon of safety to his people, and ever be ready to meet the enemy at home or abroad, is in the keeping of the gods, and only when they decree can he fall. Armed with this assurance he goes forth strong to meet danger, and if need be, death. The music of the first four lines of this song is in E major, but with the last two the key changes to the relative minor, and seems to bring the general teaching home to the child, who is bidden to "go forth in its strength," this mandate being emphasized by the rolling of thunder.

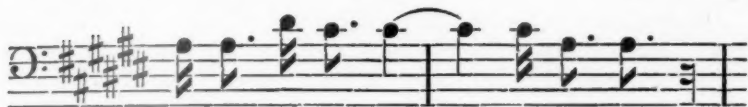
At this stage of the ceremony, the first part, that in which boys alone had a share, came to a close. The name of the second part, open to all children, girls as well as boys, was "Dhi-ku-win-he," and means turning the child; dhi, action by the hand; ku-win-he, to turn. The priest takes the child to the east of the fire, then lifting it by the shoulders carries it to the south, where its feet are allowed to rest upon a stone or a buffalo skull, placed there for the purpose. There the priest turns the child completely around, then carries it in the same manner to the west, the north and the east, turning it upon the stone at each point, while Song No. 5 is sung.

SONG No. 5.

She ga ku - win

āa a - ki - dhe dha She . . . ga ku-win . . .

ha a - ki-dhe dha, Ba-Au du ba ha



te ta - de du ba ha te.



Ta - de ba-zhon dhe a - ki - dhe dha



Ta - de du ba ha te.

In! In!

Translation :—

Turned by the winds, goes the one I send yonder ;
Yonder he goes, who is whirled by the wind ;
Goes, where the four hills of life, and the four winds are standing ;
There, in the midst of the winds, do I send him,
Into the midst of the winds, standing there.

(*The Thunder Rolls.*)

Literal rendering.—She, from she-dhin, going yonder, implies a person speaking ; ga-ku-win-he, ga, to strike by the wind, ku-win-he, to turn ; dha, oratorical end of the sentence ; ba-hu, ridge or hill ; du-ba, four ; ha, group ; te, descriptive suffix indicating standing ; ba-zhon, in the midst ; dhe, goes (in the third person) ; a-ki-dhe, I cause him ; dha, end of the sentence ; ta-de, winds ; du-ba, four ; ha, groups ; te, standing ; in ! rolling of the thunder.

The elements invoked by the thunder priest, in Song No. 1, here seem to have had a part to perform. The stone, the bunches of grass which have been laid by the fire, and the buffalo skull, typified the venerable and the fruitful earth. The four groups of hills were representative of the four stages of man's life on the earth ; childhood, which was conceived to begin when the child was able to walk steadily, and be independent of its mother ; youth ; manhood ; and old age. The winds standing in four groups, into the midst of which the child was sent, symbolised the circumambient air, by which man is filled with health and strength, and enabled "to face in every direction" as he traverses the earth, and to meet the various vicissitudes he must encounter as he passes over the four groups of hills, and completes the circuit of a long life.

It was believed that this ceremony exercised a marked influence upon the child, enabling it to grow in strength and in the power of self-control.

The music is in the five-tone scale of F sharp major, while the thunder roll returns to the relative minor.

If up to the time of this ceremony the child had borne a cradle name, that name was now discarded and its *ni'-ki-e* name, assumed. This *ni'-ki-e* name—if it had not already been given with certain ceremonies peculiar to the gens—was now selected by the parents, and the mother repeated it to the child, bidding it, on entering the sacred lodge, to tell the name to the priest. After the turning of the child, its *ni'-ki-e* name was announced, the priest crying aloud: "Ye hills! ye grass! ye trees! ye creeping things both great and small! I bid you hear! This child has thrown away its cradle name. *Hi-e!*" (A call to take notice.)

The ceremony closed as it began, with an invocation. The priest picking up the bunches of grass and holding them aloft, sang Song No. 6; then he dashed them to the ground, where they burst into flames, and the child was dismissed as the burning grass illuminated the sacred lodge.

SONG NO. 6.



Coo-dhe gon di in-gi be he na - Adhin ba

na-Adhin ba ha. Pe-de zhi-de na-ka - de

na - Adhin ba, na - Adhin ba ha!

Coo-dhe gon di in-gi be he na - Adhin ba na-Adhin ba ha.



Translation :—

Come hither, haste to help me,
Ye flames ! ye flames ! oh come ;
O hot, red fire, hasten,
Oh haste, ye flames, to come,
Come speedily to help me ;
Ye flames ! ye flames ! oh come ;
O hot, red fire, hasten,
Oh haste, ye flames, to come,
Come hither, haste, and help me !

Literal rendering.—Coo-dhe, from dhe-coo-dhe, hasten ; gon, suddenly ; di, from e-di, here or hither ; in-gi, to ask assistance ; be, ba plural sign ; na-h dhi, flame ; ba, plural sign ; ha, end of the sentence ; pe-de, fire ; zhi-de, red ; na'-ka-de, hot.

The music is in the key of F major, and the long notes are upon the word "be," the sign of the plural, indicating that many are called to hasten.

Upon the return home of the child, the father cut its hair in a certain prescribed fashion which was symbolic of the totem of his gens, as, for instance, the boy belonging to the Turtle band had the head shaved, with the exception of a lock on the forehead, one at the nape of the neck, and two on each side. The bald crown represented the shell of the turtle, the front lock, the head, that at the back, the tail, and the two on each side, the four feet of the animal. Each year, on the anniversary of the ceremony of cutting the hair, until the time of the second dentition, the child's hair was trimmed in this symbolic fashion, in order to fix in his mind the totem that marked his particular kinship. The scalp-lock, the sign of his consecration to thunder, was kept carefully braided, no matter how frouzy and tangled the rest of his hair might be allowed to grow.

From the fragments preserved to us of this ritual, we are able to see the scope of the rite. Two distinct ceremonies seem to have been incorporated in it ; in one the boy was consecrated to the thunder god, who thenceforth became the arbiter of life

and death to the man. In the other, all the children were placed "in the midst of" those elements believed to bring to the race, health, strength; and the capacity for a long, fruitful and successful life.

There are reasons growing out of the study of other rites and ceremonies pertaining to the tribe, for looking upon the "turning of the child" as being probably the older ceremony of the two in the rite. It is less specialised, and is of wider application to the people, while that of "cutting the hair" seems to have grown up with the development of the *u-ki'-te*, tribe—the union of the different gentes, *Ton'-won-gdhon*, for mutual defence. In a community beginning to crystallise into organized relations, the sphere of the warrior would naturally rise above that of the mere fighter; and when the belief of the people concerning all nature is taken into consideration, it is not surprising that the movement toward social organization, should tend to place the warriors—the men of power—in close relation to those natural manifestations of power, seen in the fury of the storm, and heard in the rolling of the thunder. In other studies I have called attention to ceremonies instituted by the "leaders" in the interest of unification, and the ceremony we have just considered is an additional example; through it the people were to be welded together by the inculcation of a common dependence upon a powerful god, and the sign of consecration to him placed upon the head of every male member in the tribe.

PEABODY MUSEUM, HARVARD UNIVERSITY.

June 1, 1897.

Is MRS. F. C. SMITH a "LAST LIVING ABORIGINAL of TASMANIA"? By H. LING ROTH.

[WITH PLATES XXVI-XXVII.]

IN September, 1889, Mr. Jas. Barnard read before the Royal Society of Tasmania a short paper entitled "Notes on the Last Living Aboriginal of Tasmania." This paper was practically a claim asserting that an old resident at Irishtown, near Port Cygnet, named Mrs. Fanny Cochrane Smith, was a pure blood Tasmanian aborigine and hence the sole survivor of her race. As we had been, since the year 1876, under the impression that with the death of Truganina no pure blood aboriginal survived, the claim was naturally much doubted by anthropologists. A reference to this paper was made in "Nature," November 14th, 1889, and the statement was, without apparent examination, accepted as a fact and reproduced by Prof. A. H. Keane in his "Ethnology," published seven years later (p. 294 note). I had, however, on receipt of a newspaper copy of Mr. Barnard's paper pointed out in "Nature," December 5th, 1889, reasons which to me appeared to be sufficiently strong for at any rate withholding my judgment on the question until further proof should have been forthcoming. The chief objections to our accepting Mrs. Smith as the survivor of the race were to my mind an absence of any description of her physical characteristics which could enable us to judge, and a general absence of proof of identity—for much seemed to depend upon the proof that she was a certain girl known at Flinders Island Aboriginal Establishment about the year 1848 *et seq.* I was not aware when I wrote that at the meeting ("Pap. and Proc. Roy. Soc. Tasm. for 1889," p. 64) at which Mr. Barnard's paper was read, one Fellow asked Mr. Barnard "not to press the matter too strongly on the Society. While Parliament was free to act at its discretion in entertaining a claim, the Royal Society would not be justified in showing any amiable weakness in the same direction. If, however, he threw out a challenge to ethnologists, he ran the risk of depriving Fanny Smith of what she now enjoyed," for Parliament, accepting her claim, had granted her an annuity. It was therefore evident that locally Mrs. Smith's claim met with no scientific support.

Since that date I despatched to Port Cygnet a brother of Mr. J. W. Beattie, the well-known Hobart photographer and present possessor of Woolley's negatives of Tasmanian aborigi-

nals. He was successful in getting me three photographs of Mrs. Smith—full face, three-quarters, and profile. He also obtained a lock of her hair, but from what portion of her head he does not state. Mr. J. W. Beattie has sent me several particulars of her from two correspondents of his, the one the Rev. A. T. Holden, formerly Wesleyan Methodist minister at Port Cygnet, the other a Mr. Geeves, an old resident at Hobart. Mr. Holden says she is about 5 feet 6 inches in height, while Mr. Geeves says she is about 5 feet 2 inches or 5 feet 3 inches; the latter says her colour is dark brown or olive, and the former speaks of her "curly" hair. She appears to be a very religious, hard-working woman with a numerous family, viz., six boys and five girls, and about thirty grand-children (Geeves). She can read and write well, appears to be a very fluent and popular speaker, and "apt in illustrations drawn from her aboriginal life and associations" (Holden). Both correspondents are of opinion that she is an aboriginal, and she certainly thinks so herself (Holden).

To come to definite detail, however, in the absence of any other living representatives now we must confine ourselves to a comparison of photographs of Mrs. Smith with those of Truganina, who died in 1876, and who was a pure blood aboriginal without any doubt.

The five characteristics of Truganina's face in common with those of her fellows (Dr. Garson in H. Ling Roth's "Aborigines of Tasmania," p. 195) are (1) the wild appearance due to the great development of the facial portion of the frontal bone and the deep notch below the glabella at the root of the nasal bones; (2) the shortness of the face; (3) the smallness of the lower jaw; (4) the very dark skin; (5) the woolly nature of the hair.

Comparing these facial characters with those of Mrs. Smith we find (1) less development of the frontal bone less deep notch below the glabella; (2) a longer face; (3) a normal lower jaw; (4) a lighter skin; (5) the hair woolly on the forehead and wavy on the temples—altogether a Europeanised type of countenance.

If we now turn to Fig. 3, where I have arranged a set of profiles, traced and reduced from Mr. Woolley's photographs, and compare them with that of Mrs. Smith (Fig. 4), we find:—All have a receding upper forehead, while Mrs. Smith's rises higher than any. Excepting W. Lannay (as to whose parentage there is some doubt—it having been said that the notorious Sydney aboriginal Mosquito was his father) all have very projecting brows; Mrs. Smith's are not so beetling as any of them. All have the deep notch at the root of the nose; in Mrs. Smith's profile this is not so marked. The eyes in all, including Mrs.

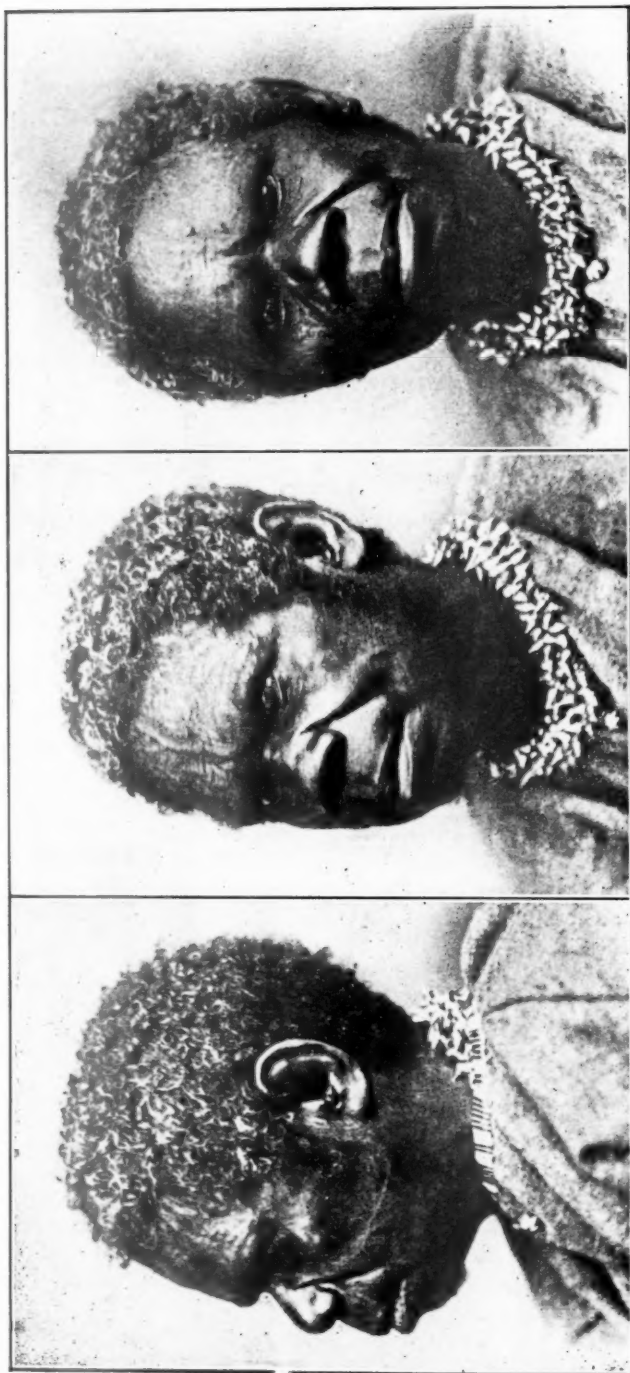


FIG. 1. TRUGANINA, DIED JUNE, 1876.

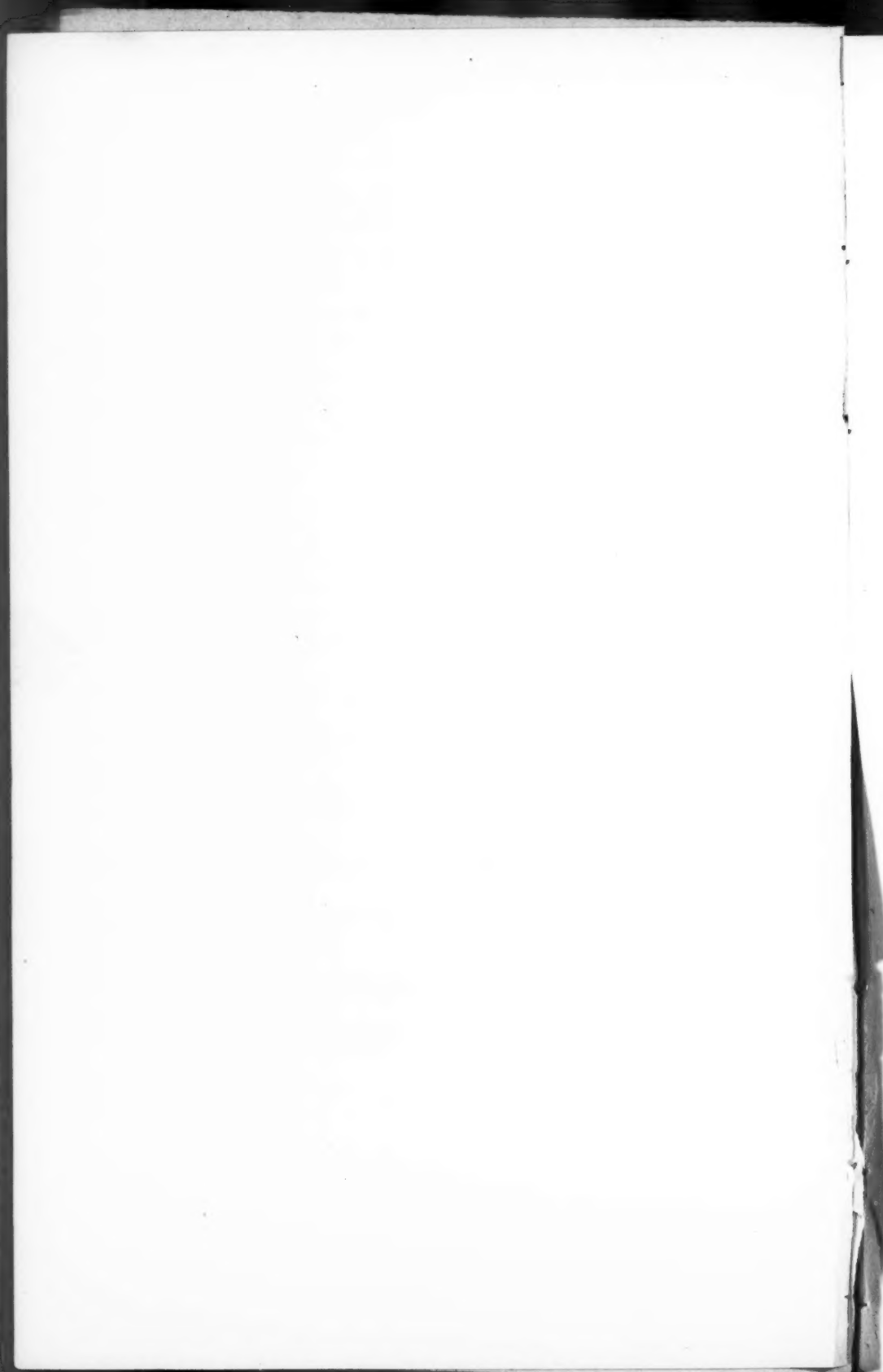




FIG. 2. MRS. FANNY COCHRANE SMITH, OF IRISHTOWN, PORT CYGNET, TASMANIA.

Smith's, are deeply set. The noses in all may be termed stumpy and broad, while Mrs. Smith's is decidedly longer and narrower, and her whole face is proportionately longer. There is little prognathism in any of the faces, while in Mrs. Smith's face there is less. The lips in all, as well as in Mrs. Smith's, vary very much. The chins are weak, while Mrs. Smith's is decidedly stronger. The result we arrive at is then the same as in our first comparison.

Regarding the evidence as to hair, Prof. S. J. Hickson, F.R.S., who has kindly examined Mrs. Smith's lock, reports to me. "If I

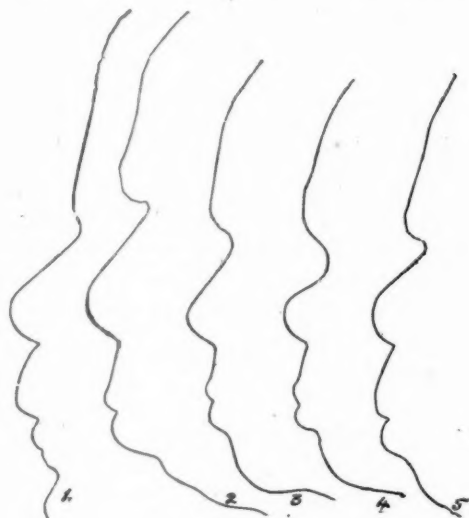


FIG. 3.

- | | |
|--------------------------------|-----------------|
| 1. William Lannay, with beard. | 3. Bessy Clerk. |
| 2. Wapperty. | 5. Truganina. |
| 4. Patty. | |



FIG. 4.

6. Mrs. F. C. Smith.

had no further evidence of the owner's race than her hair, I should say she might be either Tasmanian or Andamanese." In reply to further inquiries, he writes me: "I should be quite prepared to find in any half-caste, hair of the exact form and colour of one parent. I have seen thousands of half-castes between Malays and Europeans, and I have often observed that the aboriginal parent's influence predominates in a marked degree in the matter of hair. Nearly all these half-castes have the coarse black hair of the Malay. The point of deviation between the

specimen of Mrs. Smith's hair and the hair of other Tasmanians I have examined, is that the average curl is rather bigger, viz., 10 mm. instead of 5 or 6 mm.; but I do not lay much stress on this, as the hair may have been brushed." As mentioned above, I do not know whether the specimen was taken from the top of the head or from the sides—from the examination it would appear not to have been from the sides, as in the photographs it is shown as wavy.

To digress a little, it is very curious that there should still be doubt as to the woolliness of the hair of Tasmanian aboriginals. Professor Ratzel in his "*Volker Kunde*" (2nd ed. German, I, pp. 350 and 351), besides other mistakes about the Tasmanians, gives a portrait of Wm. Lannay with woolly hair, and one of Truganina with curly hair. Dr. Topinard does not go so far, but he sees a difference, probably due to the engraver's art, unless he is referring to the natives' hair in its natural and artificial states, for he says, "*Dans le livre de M. Bonwick sur les Tasmaniens étaient représentées deux sortes de figures, les unes avec des cheveux en petites boules éparées, les autres en boucles très longues*" ("*Bull. Soc. d'Anthrop.*," Paris, 1878, 3rd Ser., I, p. 63).

As regards the colour of the skin as above mentioned by Geeves, his description tallies with that of Backhouse and Milligan, but is contradictory to that of most other observers; hence as well as on account of the generally loose way in which skin colour is described it had better be left out of consideration here.

From the above comparisons we may, I think, now venture to conclude that, while Mrs. Fanny Cochrane Smith's facial characteristics partake largely of those of the Tasmanians, still there is a considerable modification in almost every feature which tends to show that she is of mixed blood. Hence we cannot consider her a true Tasmanian aboriginal, and must conclude that with the death of Truganina we have lost for ever a living representative of the Tasmanian race.

ANTHROPOLOGICAL MISCELLANEA AND NEW BOOKS.

Readers of the Journal are invited to communicate any new facts of especial interest which come under their notice. Short abstracts of, or extracts from letters, will be published at the discretion of the Editor. Letters should be marked "Miscellanea" and addressed to The Secretary, 3, Hanover Square, W.

"Navaho Legends." Collected and translated by Washington Matthews, M.D., LL.D. With introduction, notes, illustrations, texts, interlinear translations, and melodies. (Boston and New York. Published for the American Folklore Society by Houghton, Mifflin & Co. 1897.)

The American Folklore Society has rendered good service to anthropological studies by the publication of this interesting and important contribution to the study of aboriginal traditions. The Navaho (formerly written in Spanish fashion *Navajo*) tribe is a branch of the Athabascan stock, though not unmixed, occupying a tract of arid upland, chiefly in the territories of Arizona and New Mexico. The people rudely cultivate the soil, and tend large herds of sheep and goats, obtaining from the latter their principal food-supply and wealth. During recent years they have formed a subject of study by American ethnologists, and valuable collections illustrating their arts and customs are to be found in the National Museum at Washington. Dr. Matthews has been initiated into their ceremonies. To him we owe numerous papers which throw considerable light on their culture, such as that on "Navajo Weavers," in the third, and "The Mountain Chant, a Navajo Ceremony," in the fifth "Report of the Bureau of Ethnology."

The legends published in the present volume are three in number: a lengthy origin legend and two rite-myths. "By a rite-myth is meant a myth which accounts for the work of a ceremony, for its origin, for its introduction among the Navahoes, or for all these things combined. The Navahoes celebrate long and costly ceremonies, many of which are of nine days' duration. Each ceremony has connected with it one or more myths or legends which may not be altogether mythical." Rite-myths consist of two parts: the exoteric and the esoteric. The latter are known in their complete form only to the priests of the rite, and comprise "minute and often tedious particulars concerning the rite, its work, symbolism, and sacrifices." As here given, these particulars are omitted, the exoteric, or narrative, parts being

alone set forth, though the rest is occasionally referred to in the notes. The origin legend is one of great interest, especially what relates to the adventures of the coyote, which include many incidents common to the Old and New Worlds.

A point in the organization of the Navahoes to which attention should be directed is the small trace of totemism to be found among them. The names of the gentes are almost entirely local; nor is any evidence of clan totems known to exist at the present time. Having regard to the theory of Miss Alice Fletcher and Dr. Boas put forward at the Toronto meeting of the British Association and to recent controversies as to the place of totemism in religious evolution, it is desirable that all the Navaho traditions be searched for indications of its existence and influence.

The volumes published by the American Folklore Society are of high ethnological value. The Society is by no means so well known in this country as it should be; and there are only two subscribers on this side of the Atlantic to the *Memoirs*, of which the volume before us is the fifth. This is not very encouraging as an index of scientific interest in the subjects dealt with. A work like the present is a substantial addition to our knowledge, and its value will be recognized by every student of civilization. The plates, map, and figures in the text are all excellent, and form real illustrations, real aids to understanding the letterpress.

"**The American Anthropologist**," in Nos. 9, 10, 11, and 12 of vol. x, contains amongst other articles:—"The Significance of John Eliot's Natick," by William Wallace Tooker; "The Verification of a Tradition," by Frederick W. Hodge; "Bandelier's Researches in Peru and Bolivia," by Frederick W. Hodge; "Anthropology at Detroit and Toronto," by W. J. McGee; "Archæological Map of the State of Ohio"; "The Aborigines of Formosa and the Liu-Kiu Islands," by Albrecht Wirth; "Northern Elements in the Mythology of the Navaho," by Franz Boas; "On certain Stone Images," by Cyrus Thomas; "Geographical Distribution of the Musical Bow," by Otis T. Mason; "Trephining in Mexico," by Carl Lumholtz and Ales Hydlicka (illustrated); "Analysis of the Deities of Mayan Inscriptions," by Lewis W. Gunkel (illustrated); "A Copper Mask from Chimbote, Peru," by George A. Dorsey (illustrated).

"**Revue Mensuelle de l'École d'Anthropologie de Paris**," in Nos. I and II for 1898, contains amongst other articles:—"Nécessité de l'Assistance des Dégénérés Inférieurs," by H. Thulie; "Grottes Ornées de Gravures et de Peintures," by G. de Mortillet.

"**Journal of the Anthropological Society of Tōkyō**," in Nos. 140 and 141 of vol. xiii, contains:—"Anthropological Study about Eta," by R. Torii; "Criticism on the Anthropological Views in Several Text Books, recently published in Japan," by D. Satō; "On the Ancient Pottery from Corea," by K. Nonaka.

THE JOURNAL
OF THE
ANTHROPOLOGICAL INSTITUTE
OF
GREAT BRITAIN AND IRELAND.

The NATIVES of ROTUMA. By J. STANLEY GARDINER, B.A.,
Gonville and Caius College, Cambridge. (Communicated
by Professor ALEXANDER MACALISTER, M.A., F.R.S.)

(Continued from p. 435.)

XII. CANOES AND DRUM.

[WITH PLATE XXVIII.]

Of canoes two kinds are now made: a big one, used for fish-driving, the *tafaga*, and a small single one, used inside the reef in the boat channel, the *tavane*.

The *tafaga* (Fig. 6, 1) vary from 25-35 feet in length, take from eight to twelve paddlers, and carry upwards of twenty people. A suitable tree is selected, cut down, and roughly shaped. It is then properly allowed to lie for a few months, after which it is dragged down to the *hanua noho* (village) which is going to build it. It is then hollowed out to the desired shape, the ends being left solid and the walls up to 2 inches thick. In the centre the sides would not be strong enough to bear the strain, and so are removed, fresh planks being fitted into their place. These are fixed by sinnet, holes for the lashings being bored through the planks; wedges are

then driven in between from the inside to make the whole watertight. The sinnet makes the holes watertight, but pieces of sponge from the reef are driven in to ensure it. There is a distinct bow and stern, the former sharp and pointed up, the latter blunter and curved downwards. The first 3 feet of the deck at each end is covered. The breadth along the whole centre is about the same: $1\frac{1}{2}$ –2 feet. The side towards the outrigger, or *sama*, is slightly straighter (Fig. 3) than the other. The outrigger is about 5 feet or rather less away; it is not quite half as long as the whole canoe. It lies usually on the right, or starboard, side, and consists of a post of light wood

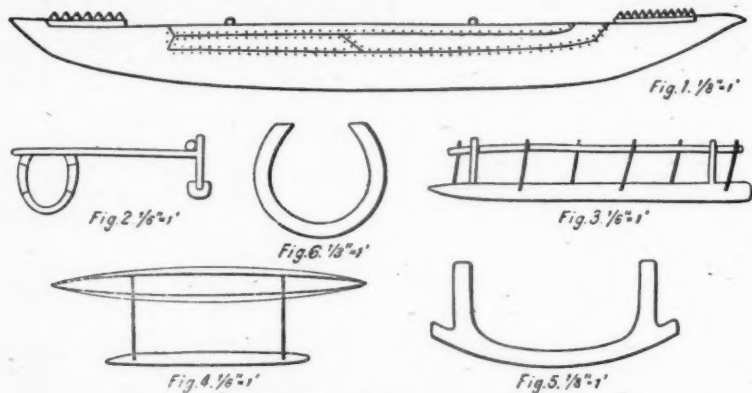


FIG. 6.—THE CANOE AND DRUM.

- Fig. 1.—Side view of the *tafaga*, showing planks let in at the side, also bow and stern.
 „ 2.—Section of the *tafaga* through one of the supporting beams of the *sama*, or outrigger.
 „ 3.—Side view of the *sama* to show method of fixing.
 „ 4.—Top view of the *tavane*. The thin lines at the sides show the bulge of the canoe.
 „ 5.—Longitudinal section through the *oie*, or drum.
 „ 6.—Transverse section of the *oie*.

(The scale should be multiplied by $\frac{1}{4}$.)

slightly pointed at one end. This is supported by two hard wood beams, driven into it, lashed across the canoe itself; the bend at right angles, which is necessary, is cut out, but can be, and was, frequently induced in the growth of the timber. Another beam runs just above the bend between these; to it rods of hard wood are lashed, previously driven into the post underneath (Fig. 2). A platform is generally made to take the paddles and carry the nets between the canoe and the outrigger; the paddle blade is of an oval form, 2 feet long by about 6 inches broad. The bailer is of the regular type, of one piece of wood

with handle in the centre, and shaped to fit the canoe. The launch of one of these used to be the occasion of a feast. *Kava* was placed for the gods, after one of whom it was named and then supposed to be under his special protection.

The *tavane* is only about 12 feet long and 8-10 inches deep; at the top it is usually about 6 inches broad, but bellied out considerably underneath. The outrigger is about 8 feet long and supported merely by two crooked sticks, lashed across the top of the canoe.

The *oie*, or drum, is always stationary, and usually of very large size; it has generally a special roof. Its general shape (Figs. 5, 6) is the ordinary, but it is much more bellied and cut out deeper at the ends than is customary in Fiji.

The double canoe is not known now, and only one is specifically remembered; it was termed *ahoie*. In legends it is always referred to as the *ahoie* or the *te bau rua*; the former term I do not believe to be derived from English. Canoe-sailing is a forgotten art, but the language possesses all the necessary terms for it. The sail is said to have been made of the fine mats. There is in the island one steer oar, belonging to a canoe of about 60 feet in length, judging from the relative length of the steer oar to the canoe in Fiji.

XIII. STONE AND SHELL AXES.

Stone axes (Plate XXVIII, Figs. 1-3) were made of a very fine-grained basaltic rock common in the island, or of dense lava rubbed down to the proper size and form; they were termed *ia hofu*. They were mounted on an elbow stick, as is general in the South Pacific. In shape they are roughly rectangular, flattened above, below, and at the sides, with one end bevelled away. Proportionately to their size, they are remarkably thick, and the angle of their cutting edge is very blunt. Between Figs. 1 and 3 there is an almost perfect series of four axes in my collection, but two of them have their sides near the butt considerably rounded. There is one axe smaller than Fig. 2, but it appears to have been considerably knocked about and chipped. The cutting edge in Fig. 3 is much more acute than is general, while another is also slightly more acute, but has the lower surface flattened, while above it is somewhat rounded. A rough axe of lava has its sides rounded, and is proportionately considerably thinner than any of the above. The axe represented in Fig. 10 was dug up in the grave of the *mua* (p. 464); it is termed the *voi ronu*. It is a singularly well finished and polished specimen. It was used by no one except the *mua*, but I could get no information as to how it was mounted. There is

no sign of its ever having been mounted on the top of a stick or in a forked one, but if fixed in any other way there would be no object in having both ends sharpened.

The smaller axes are nearly all made from shells, the principal ones used being the clam (*Tridacna* sp.?) and a large spider shell (*Pteroscera bryonea*). They are as far as possible squared, but taper away from the bevelled end considerably. Between Figs. 4 and 5 are four intermediate forms; one is $2\frac{1}{2}$ inches long, cutting end 1 inch broad, but the other only $\frac{1}{4}$ inch. Fig. 6 is the smallest; it has been ground out of a very small *Tridacna*, and still shows the lines on the shell very well. A piece of shell, roughly squared and ground down somewhat at one end, is apparently a half-finished axe. There is also a stone axe smaller than any of these, $1\frac{1}{2}$ inches long by $\frac{3}{4}$ broad and $\frac{1}{8}$ thick; it has the same general shape as the above, but possibly its use was different.

I have five shell and one stone implement, used for scraping the pandanus leaves for mats (p. 419). The shell ones are all of *Tridacna*, and are squared as far as possible, but taper slightly. There are two intermediate between Figs. 7 and 8, while the fifth tapers very slightly, and very closely resembles the stone form (Fig. 9).

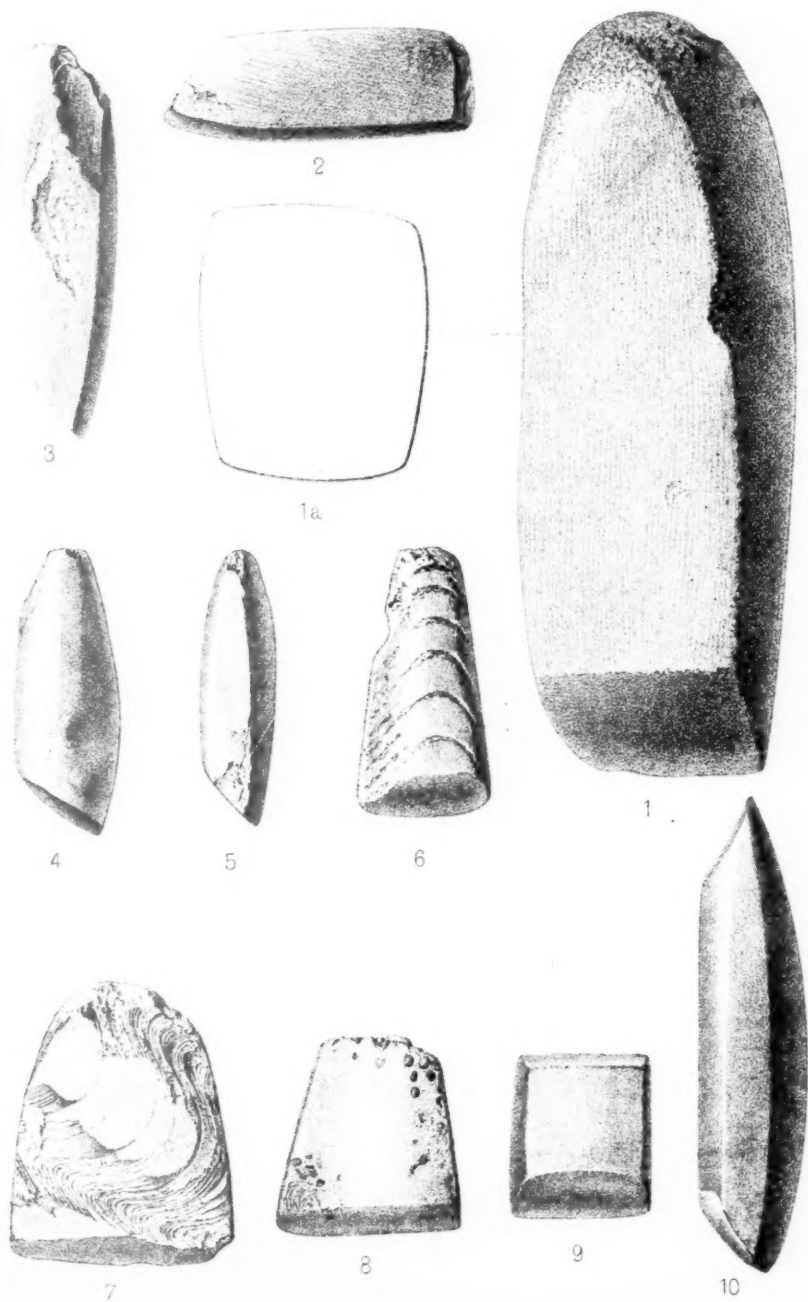
XIV. THE SOU AND HIS OFFICERS.

The head chief of the island, or *fakpure*, was also one of the officers of a spiritual chief, who was termed the *sou*, but who really had little to do with the government of the island, and who lived wherever he was placed by the *fakpure* and the other chiefs. The position seems to have been directly comparable to that of the *how* of Tonga,¹ but, while the latter had considerable temporal power, the *sou* had none. There are indications, however, that the two functions, spiritual and temporal, were not always separate, in some of the privileges of the *sou*, and in his officers and their duty towards him. In the legend of

Explanation of Plate XXVIII.

- Fig. 1.—Largest stone axe, seen slightly from the side.
 „ 1A.—Transverse section of same, by $\frac{3}{4}$.
 „ 2.—Intermediate shaped stone axe to Fig. 3, by $\frac{3}{4}$.
 „ 3.—Narrowest stone axe with most acute cutting edge, by $\frac{3}{4}$.
 „ 4 and 5.—Side views of two shell axes, by $\frac{3}{4}$.
 „ 6.—Top view of thinnest shell axe, by $\frac{3}{4}$.
 „ 7, 8 and 9.—Implements for scraping clean the leaves for mats. Figs. 7 and 8 are of shell, and Fig. 9 of stone, by $\frac{3}{4}$.
 „ 10.—Side view of the *voironu*, a stone axe peculiar to the *mua*.

¹ See Mariner, *loc. cit.*



Rahou (Sec. XXV, *a*), he is described as making a great chief in Rotuma, who is called *Souiftuga*, while in the legend about the coming of the *kava* (Sec. XXV, *g*) the office is held by a woman, the conqueror in a recent war. The woman's name, *Souhoni* (the woman *sou*), is at the present day a very big name and restricted to certain *hoag*; indeed, it is the only woman's name, about which I found any restriction as to use. In a list (App. I) of the last sixty *sou*, all are men, but in many legends the names are those given to women at the present day. Inquiry merely brought out that that was before the Tokalau, or Gilbert islanders, came to Rotuma, but no further explanation was ever forthcoming. Possibly the connection was in Fonmon, a Noatau *sou*, who is supposed to have got the best-looking girls from each district, and ordained that from his offspring with these the *sou* was to be chosen; the name is the same as that of the man who brought the Tokalau people on shore (p. 403). Before this all the *sou* are stated to have come from Noatau.

The appointment to the office was for a term of six months, each district taking it in turn to appoint. The old *sou* however could continue as long as he liked, or as long as he could manage to get together the great masses of food that he was required to provide. The Rotuman year likewise consisted of six months: *Noatauta*, *Houeata*, *Fosuoghowida*, *Kasepta*, *Afopugida*, and *Oipapta*. The list is approximately the same as given by the Wilkes Expedition (p. 402), but there is the month *Taftafi*, which corresponds to *Noatauta*. Probably the former name was the correct one, and the latter a modern one from the great feast held in that month in Noatau. *Kasepta* and *Afopugida* too in my list have changed places. *Oipapta* is stated to correspond to January and July, but my information reversed this order and made it correspond to June and December. The division into months was stated to me not to have been into moons, but to have been arbitrary, each consisting of a certain number of days, but not the same number in each month, while the sum total was the same as with us. Unless record was very carefully kept of days, I fail to see the method. Crops do not come regularly in such low latitudes, but vary much in accordance with the time of planting. The coming of certain fish on to the reef however is very regular and well known, as is the breeding of the different species of birds; there is also the fructification of the breadfruit in October. All the same, I doubt whether a month was not rather a moon, and the Rotuman year six moons; an English year would then be two Rotuman years and one month.

The *sou* had as attendants a number of officers whose duty it

was to protect him, at the risk of their own lives, even if he was fighting with their own districts; they were drawn out of all the districts and supposed to be representative men of each. If the *sou* was killed in war, they were all killed too, if they did not die fighting. Their bodies, however, were not mutilated, and were always given back to their own districts to bury. Their names or titles were in order of precedence *mua* (chief priest), *hagnata*, *titopu*, *fakpure* (head chief), *fanhoga* (wife to *sou*), *fahoa*, *fagata*, *tonhida* (messenger), and *mafuida* (the presiding officer over all feasts).

The dress of the *sou* consisted of a fine mat, over which the *malhida* was worn. This dress was made of the leaves of the *saaga* (*Pandanus* sp.?), split up, and plaited together like sinnet at the top, and hanging down loose. They were stained for the most part red, but some might be left white. Black was sometimes introduced by means of the bark of the *si*, a species of banana, which on drying turns a dull black. Another dress, pertaining to some of the officers, was the *ölöli*; it appears to have been really a sort of apron, made of a fine mat, and hung down in front. It was almost completely covered with the red feathers of the *arumea* (*Myzomela chermesina*, Gray); its use was restricted to particular feasts. Round the neck might be a necklace of beads of whale's teeth, the *tifui lei*, and on each wrist was the *muleli*, described to me as a round piece of turtle bone. I dug up one when I opened the graves of the *mua*; it is certainly not bone, but resembles somewhat the horny and prismatic layers of the outer part of a pearl shell. It is about 2 inches in diameter, and has a large hole in the centre (Plate XXV, Fig. 7). On the breast was the pearl shell, *tiaf hapa*, but the really distinctive part was the *malhida*, which it was taboo for any one else to wear. The *muleli* was only worn by the *mua* as well as the *sou*, but the other ornaments were more generally used.

The duty of the *sou* was simply to see after the proper performance of the various feasts, all of which had some religious rites. He was however in no way under the priests of the different *atua* (p. 468), nor does he seem to have had any connection with them. It was his business to preside over the feasts, and, whatever might be desired, he had to pray for at the same time as he poured out the *kava* to the god. He was, when *sou*, under the protection of this god, and could not be harmed by spirits and ghosts. He lived where he was put, but at the new moon it was his own district which had to bring food. First-fruits from all the districts had to be presented to him, and it was the business of the *fakpure* to look after this and see that they were properly paid. If he desired a new

fanhoga, he simply had to give the *fakpure* the name of the girl he had chosen, and she remained with him till he gave up his office or sent her away.

Of the other officers, the *hagnata*, *titopu*, *fahoa*, and *fagata* formed with some of their people a special guard for the *sou*, always accompanying him; they usually belonged to four several districts. They were armed with spears, which in times of peace—i.e., if the *sou* was not engaged in a war—always had their ends covered with a strip of banana leaf, tied on. Two of these spears, or *jou*, obtained from Rotuma, are very remarkable; they were evidently spliced on to a handle, which was said to be of soft wood. The splice is 6-7 inches long, not cut in one, but really in two parts, in such a way that it could not possibly by any chance slip. Above this the spears have a length of 3½ feet carved, and on the end of one are fixed the spines of the stinging ray with sinnet; there are three perfect spines, and there is also the butt end of a fourth, the rest of which has broken off. These spines have along their edges recurved teeth, so that, when thrust into any one, they can only be extracted with difficulty and make a very jagged wound. If left in the wound, after being broken off, they gradually work their way through the body and come out elsewhere. Any one meeting the *sou* had to pay the proper marks of respect: to sit down at the side of the path, lower the hair, and cover the face. Failing to do so, they would have the spears thrust into them, the stinging rays broken off, and also the soft wood handle; the spear would then be grasped in the hand, and the offender thrust at with the spliced end.

The *sou* commences office in *Noatauta*, and at once the district in which he is placed holds a big fish-drive, and on the following day a feast; this feast and fish-drive is termed the *kako-rose* (the washing in the salt water), and was supposed to purify the *sou* for the biggest feast in the year, which almost at once followed, the *tofi*. The *tonhida* was sent round the island to tell the people, and at the same time seized all food, pigs, cloth, mats, etc., he saw on the road; he was usually accompanied by all the boys to assist him in seizing and carrying the things to the *sou*. On the day, the *sou* was stuffed out to as large a size as possible with mats and sticks, and dressed for the first time in the *malhida* and *muleli*; he sits on the right under an awning alone, with his officers in another opposite to him, and the people on one side. The *mafuida* calls out the name of the *sou*, addressing him on this occasion as *Faupā*, on which the *tonhida* causes the food which the *sou* has had prepared to be brought forward and piled up in the middle; it was supposed to be larger than any pile which should be prepared and

brought during that day. Next the near relatives of the *sou* are called, and they have to make a heap nearly as big. In succession come the *mua* and his people, and the different districts likewise; a few small heaps, too, used to be made for the dead *sou*, and were the perquisites of the priests. The *sou* and the *mua* exchange heaps, and the different districts likewise; there are no heaps for the other officers of the *sou*. The *kava* is prepared, and after being called and poured out to the different dead *sou*, is called to the living *sou* and his officers in the given order. The chewing, which is performed as usual by the women, is presided over by the *fanhoga*. After the feast the *fanhoga*, too, divides out the residue to the several officers and districts, which take it home with them. Separate presents of food and mats used to be brought to the *sou* at the same feast by all the districts.

Another feast nearly as big, the *sisiolda*, almost immediately used to follow in Noatau on the top of the hill of Seselo, where the *sou* are buried. The *kava* is poured on to the graves of the several *sou*, and the living *sou*, after receiving it, has to eat of all the different grasses on the hill. Two small feasts follow at Ranulda and Vaimossi, where two *sou*, killed in war, were buried, the latter by the Niuafoou people. All the *sou* were buried, quite independently of their district, on this hill, but the flat top was divided roughly into separate graveyards for the several districts. The one belonging to Itomotu is characterised by its large flat basaltic stones; there is only one for Pepji and Juju, and that of Noatau is very large. Many of the stones are immense; one belonging to a Noatau *sou* is of beach sand rock, about 10 feet long by 5 broad and 5-6 inches thick, and another is represented by a small cannon obtained probably from some whaler. The bodies are recumbent and buried about 6 feet deep.

In *Houeata*, there is a big feast in Oinafa, to which all go except the *fanhoga*; in *Oipapta* there are three big feasts in Juju, Malaha, and on Muasolo. At the first the *sou* is not present, but the *mua* takes his place, and to the third the *fagata* goes as the *sou*, dressed in the *malhida*. As soon as it is over he returns the *malhida* to the *sou*, and at the same time smears him plentifully with the turmeric, or *mena*, with which he is covered; he then retires by the back door, and on the following day his people have to get ready a big pile of food and bring it to the *sou*. The *mua* were all buried on Muasolo, a small hill near Lopta, in Oinafa; there were two holes for the purpose, in the one of which only the *mua* from Oinafa were placed. The position was a sitting one, with the *tiaf hapa*, or pearl-shell breastplate, round the neck, and between the legs

the *voironu* (Plate XXVIII, Fig. 10) was placed. The holes were simply covered over by a mat, but otherwise open; over them was a native house. When a former *mua* died, he always had to be buried by the living *mua*. With him, but with no one else, was usually placed a piece of the bark of the breadfruit tree, so that he might have a crop in the next world. Fouma (Sec. XXV, *d*) is supposed to have told them where to bury the *mua*, and to have built the house there. For this the people had to cut posts and bring sinnet. Two men, however, from Savelei omitted to do so. The whole is finished except one end, for which two posts are wanted; so Fouma drives one of these men into the hole and places the other as a crosspiece over him. A large hole is dug underneath, and the people are told to bury all the *mua* there, but never to fill up the hole.

At the feast the house was always rethatched, the old thatch being equally divided, to ensure the possessors a fruitful season. When this was completed, the *kava* was prepared, and a whole *tanoa* poured out to the dead *mua*. A great quantity of food is then placed in the house, as this feast differed from all others in that no food could be carried away from it. The *mua* alone can enter the house, and so has to carry all the food in. The old people, both men and women, while he is doing so, walk in procession round the house, while a prayer for a fruitful season is chanted, each fruit being mentioned by name.

<i>Te moiea naragosou, mua</i>	Be fruitful, mighty spirit, <i>mua</i> .
<i>E te moiea favorou, mua</i>	Be fruitful to the fava tree, <i>mua</i> .
<i>Te moiea se, ôh, ôh, ôh</i>	Be fruitful to us, ôh, ôh, ôh.
<i>Moiea ifi, ma moiea fava</i>	A fruitful <i>ifi</i> and a fruitful <i>fava</i> .
<i>Te moiea se, ôh, ôh, ôh, etc., etc.</i>	Be fruitful to us, ôh, ôh, ôh, etc., etc.
<i>Se le mua le; sol, ôh, ôh, ôh.</i>	
<i>Uktrua-ôô.</i>	

The language is antique, and now nearly forgotten; I could get no translation to the last two lines. The third and fourth lines are repeated with the names for all other fruits substituted for the *ifi* and *fava*; *uktrua* is supposed to mean that it is finished. All carry during the ceremony a stick, the *poki*; it is held over the head with both hands and moved rhythmically to and fro with the singing. The *naragosou* was explained to me as the head of *Limari*, the abode of departed spirits, and also as the god of the winds, rain, and sun, but Marafu identified him as being the same as *Tagaloa Siria* (Sec. XV).

During *Noatauta*, *Houeata*, and *Oipapta*, on account of all these feasts, marriage used to be forbidden, except the parties had been formerly married; the idea was that it would cause a great deal of work in preparing the feast. During the other three months, all planting and house-building had to be done.

The *sou* was left alone, but was not allowed to relax in any part of his state or to go anywhere by himself.

Peculiar, I believe, to the *sou* was a stool with four very thick legs, and carved out above so as to fit the body, when seated on it. Its height is about 10 inches at the sides by 7 in the middle, and breadth about 16 inches. It is carved out of a solid block of *hifo*, and has underneath, between two of the legs, a piece left with a hole in it, to hang it up by. The one, figured, is considerably more massive than two others which I saw, but one of these was evidently of no great age.

XV. RELIGION.

Long before the advent of the missionaries to Rotuma, the religion of its people seems to have degenerated into the grossest superstition and a mere belief in *atua*, a generic name for all devils, spirits, and ghosts. It is also used for the soul, as we understand it. These *atua* were ever ready to punish and prey on any one who did not propitiate them with plentiful gifts of food and *kava*. Each *hoag* had its own *atua*, but several *hoag* might acknowledge a big *atua* over all, while they each had their own *atua*. At the same time, so long as they propitiated their own *atua*, no great harm could happen to them, unless a greater *atua* laid a curse on them, causing sickness, etc.; the *atua*, though, could only affect them personally, and had little or no power over their crops. This *atua* might be termed "*the god of the hoag*," but there was also an inferior class of *atua*, who might be called "*devil spirits*," whose sole delight it was to go about causing sickness and death. To them only an evil influence is ascribed, and they were said to have been called up by Olili, who lived near Maftau, to assist him to conquer the Ninafou people, and then to have got too powerful, so that they could not themselves be driven away (p. 402). Their dwelling-places were in trees, stones, and rocks; certain *hifo* trees in Itoteu and Itomotu were favourite dwelling-places for them, but some were said to enter into men, such as a man with a big belly, a *matasiri*, or with a crooked finger or cross-eyes. The still inferior class of *atua*, but a class with little or no power of itself alone, would best be termed "*the ghosts of men*." They could be to some extent called up at will by the relations to assist them against their enemies and to cure them of sicknesses of a certain class, supposed to be due to the influence of soul on soul.

Over and above all these one finds a great deity, *Tagaroa Siria*. The term *siri* was applied to anything bigger than anything else, but for *siria* I had the meaning "acting wickedly" given to me by Father Chevreul. Among his

attributes are the giving of the fruits of the earth and the forecasting and directing of the lives of men. He was prayed to for food, to make the trees fruitful, for rain, or in any great enterprise in which all were taking a part. He could avert a hurricane or any other great calamity; but all his attributes are great; he does not concern himself with the doings of the *atua*. "At one time *Lagi* and *Otfiti*, heaven and earth, were joined together and touched one another. But a man of *Lagi*, *Lagatea*, lay down with a woman of *Otfiti*, *Papatea*, and as they were lying a child was born, who, rising on his knee, pushed the heaven and the earth apart, and only on the prayers of his parents, who did not want to lose sight of one another, desisted from rising to his full height." This child is called *Tagaroa* or *Tagaloa*.

Tagaloa had a son, *Toiragoni*, personified by a turtle, to whom, wherever he goes, all leaves come. To him in the sea the same attributes are ascribed as his father has on the land, but I could not find that he had any acts of worship.

Tagaloa was the god of the *sou* and the *mua*; to him and in his honour were probably all their feasts and dances. He was never called upon by name, but he was to them the indefinable something which directs and guards everything; he was never addressed directly, but usually by the term *sonoiitu*, which seems to have been applied generally to all gods. The *mua*'s feast and dance on the top of Muasolo was a prayer to him for fruitfulness to the crops and trees; it was sung only by the old people, a singular mark of great reverence. His dwelling was above, and he was accordingly supposed to see everything. He was prayed to for a plentiful harvest by the old people at mid-day in the full sunshine. If a boy was born, all would rush out of the house and, with firing of guns, call out, "*Sū-hō-hō!*" *Tagaloa* was supposed to hear, and accordingly direct the life of that boy, whether he was to become a warrior, a sailor, etc. He could thus be approached directly without the aid of priests.

The "*hoag gods*" were usually incarnated in the form of some animal, as the *tanifa* (the hammer-headed shark), *juli* (sand-piper), *olusi* (lizard), *mafrop* (gecko), etc. Should a man by any chance have happened to kill one of the particular animal which was his *atua*, he would have had to make a big feast, cut all his hair off and bury it, just in the same way as a man would be buried. Other animals, other than their own particular one, could be killed as they liked, as only their own *atua* in this class had power over them. To take the *tanifa*, the god of Maftau: for him there was a priest, termed an *apioiitu*, who officiated on all great occasions, and a priestess, called by the same name, whose business it was to cure sicknesses, and,

indeed, to see to all minor troubles. For the *apioitu* was a house of some sort, round which the people were forbidden to sing and dance. Should Maftau be in trouble or be going to war, a big feast would be held, and the best of everything would be placed in the sea for the *tanifa*: a root of *kavu*, a pig, taro, yams, etc., and always a cocoanut leaf. Much, too, would be given to the *apioitu*, but always uncooked. Presently sounds would be heard from the house in which the *apioitu* was, and he would come out, smeared with paint, foaming at the mouth, quivering all over, and falling into the most horrible convulsions. He would perhaps seize a *kava tanoa* and drain its contents, tear a pig in pieces and eat it raw, or take great mouthfuls of uncooked yam, the taste of which is exceedingly fiery. Presently he would fall down in convulsions and speak; he did not speak for himself, but the *tanifa*, who was in him, spoke, nor did he remember at all afterwards what he said. For the time he was all-powerful, and, what he told the people, they had to do; but, when he recovered, he was simply one of themselves again. The priestess was, on the other hand, really more a doctress, called in by the present of a pig and a mat. She would get into a frenzy, and so drive the devil which was troubling the person away. At the same time she never failed to give them herbs and other remedies. These offices were held by families, and their mysteries, such as they were, passed on from parent to child. The god of Matusa was the *hoie*, a stinging ray, which is common on the reef flat. There is an old man there now, who comes of the family of its *apioitu*, and claims that these fish used to come round him on the reef and follow him about. Curiously enough, there are several old people who profess, and evidently believe, that they have seen them following him.

The "*devil spirits*" are productive of evil. Thus, if people go and ease themselves near certain *hifo* trees, they will be caught by an *atua*, called *Fotogfuru*, and either die or meet with some accident. In front of Vailoga, Noatau, if you see the devil spirit there, a reef eel, called *ia*, you will be sure to die. Here, opposite two rocks outside the reef, no lights may be shown at night, and all doors towards the sea in the houses must be shut. No one, passing along, may have a lighted torch, or he will be sure to hear the drums sounding and die. On some nights, too, there is a fishy smell, when the *atua* have been cutting up some dead man to eat. *Anhufhuf*, the cave of many bats,¹ is their especial abode, but off Solkopi they have a land, called *Falianogo*, under the sea, from which cocoanuts with only two eyes are occasionally washed up on the beach. It is taboo to touch or eat these, and any one doing so would swell

¹ *Vide* "Quart. Jour. Geo. Soc.," liv, 1898, pp. 7-9.

up and die. A particular shark here is a devil, and has the same power as the *ia*.

When a man died, he was supposed to go to *Limari*, leaving the island at *Liukoasta*. This was supposed to be a land under the sea off *Losa*, full of cocoanuts, pigs, and all that man could wish for, and where all the ghosts of men dwell. Any things buried with the body would be taken by its ghost to *Limari*. On the grave food and *kava* were placed for a time, until the ghost should depart. Some ghosts were supposed to go to *Houa*, a small islet on the reef off *Oinafa*; they were, however, only supposed to stay there for a time, subsequently passing straight into the sea.

Should a man be sick, the most powerful way of curing him was for the parents of a child, which had recently died, to go to its grave and call out for its soul to come out, saying that the *kava* is all finished. After a time their cries will be heard, and they will pray the child's ghost to go and prevent any other soul from interfering with the sick man's soul, this being in former times thoroughly believed to be the cause of all bad sicknesses and death. A man could likewise call on his dead people, if he quarrelled with any one, to take that one away. So ingrained are they with this idea that Albert, one of the most intelligent men on the island, gave me this as the cause of its great decrease in population: "You see, the people were always quarrelling with one another about their land and food. They had only to wish that their father and mother would come and take their opponents away, and they would be sure soon to die. They" (the ghosts) "watched over the chiefs especially. If any one took their food, they would cause their bellies to swell up, and they would die. It" (the decrease) "is stopped now, as the *sou* and *atua* were all driven away in the war at *Matusa*" (p. 475).

In 1894 a big wave came and washed out a number of bones from a new graveyard at *Matusa*, close to the beach. A great meeting was then held in the district of both Wesleyans and Roman Catholics, and a deputation was sent by it to request the white magistrate to let them remove the graveyard. On his inquiring the reason, they stated that it was because the *atua* of the sea were always angry, when anything red was put up near the sea, and that some one had put up red palings, so that the *atua* had sent these waves to wash them away.

I have one charm from the island (Plate XXV, Fig. 6); it is merely the end of a whale's tooth, burned in the fire, with a hole bored through it, and was worn round the neck. Of auguries I cannot find that any were ever taken, but omens were carefully observed and regarded. They always consisted of something

connected with the person's *atua*. Dreams were much believed in, and charms were especially worn against their evil consequences.

XVI. WARFARE.

In the island of Rotuma there was always, as has before been indicated, a great rivalry between Noatau and Faguta under their respective chiefs, Marafu and Riemkou. With Noatau usually went Oinafa and Malaha, while Faguta had Itoteu and Itomotu. This gave a considerable superiority in numbers to Faguta, but it was usually equalised by a division in Itoteu, the north side of which was always at variance with the south, both sides claiming the right to the chieftainship. Probably the original cause was due to the conquest of the island by the Niuafuou people, who seem to have settled and intermarried mainly in the northern districts. There was never any difficulty in finding a reason, if a fight was desired, as any pretext could be seized on. The chief of one district might fail to pay the proper marks of respect to the *sou*, if he belonged to the other district, or, if tributary, might omit to send his tribute. If no cause came to hand readily, the chief of one district would steal a woman out of the other district, and then, without waiting for the other district to demand her return, would declare war himself. No violence was offered to the woman, nor indeed to any women during the war; the women simply followed their several districts, and ministered to their wounded.

There were no great advantages to be gained from the war by the winning side. The villages of the vanquished might be sacked, but they were seldom burnt; their plantations might be overrun, but there was little wilful destruction. All pigs were, of course, regarded as legitimate spoil. The vanquished would perhaps promise to pay to the conquerors so many baskets of provisions or so many mats and canoes, a promise which was always faithfully and speedily performed, even though they might accompany the last part of the payment with a fresh declaration of war. The victorious side obtained no territorial aggrandisement, as it was to the common interest of all to maintain the integrity of the land, and the victors might on some future occasion be themselves in the position of the vanquished. Nominally first-fruits were claimed by the victors from the chief of the vanquished, or perhaps the victors might depose the conquered chiefs, and put nominees of their own in their places. Small unruly chiefs of their own districts were often got rid of in this way. Such a course had, however, relatively little permanence, as the chiefs formed a kind of caste

of their own, entrance into which followed birth very jealously. There was no such thing as indiscriminate slaughter or debauchery of the women after a fight. A *faksoro* (p. 403) of a root of *kava* and a pig from the conquered was always respected for one night. Both sides remained where they were, as if an armistice had been concluded between them. Unless a fresh *faksoro*, with food sufficient for all, was presented on the following morning, hostilities would be resumed, but usually peace was arranged before this.

There was always a distinct declaration of war of some sort. It was not uncommon for the chief of the one side to send to the chief of the other a definite challenge for a particular day and place. If a canoe of one district passed in front of the chief's house in another district without lowering its sail, a *faksoro* for the insult would be demanded, and if not forthcoming, war would be declared at once. If war was not declared, it was tantamount to the submission of the insulted chief.

Warfare in Rotuma was the exact opposite to what it was in Fiji. The women were never molested; ambushes and surprises were unheard of. The two sides met usually on the more or less flat land by the beach, and a regular battle between them ensued. Previously the *atua* of both sides were propitiated by the different *hoag* separately. There were no common district rights. Tagaloa Siria was not invoked, according to Marafu, as such small matters did not concern him, and, as he was the god of both sides, it was quite unnecessary. On the night before the battle, great feasts and dances were held by both sides, and the latter were usually repeated by the two sides, when opposite one another in the field, before the battle commenced. All were clothed in a *kukaluga* or the *taktakoi*, and decorated with flowers; on the head was the war hat, a wooden or bamboo framework covered with tappa and ornamented with the long tail feathers of the boatswain bird. Round the neck of each, there was sure to be a charm, while the bodies of all were smeared with turmeric and the soot of the *hifo* nut. There usually were two or three lines of veterans, differently armed, while behind these followed the young men and boys, with stones or any weapons they might happen to have. In late wars the chief weapon was of course the gun, with which the first line was armed. A second line, armed with long, pointed sticks, termed *uok*, took the offensive when they came to close quarters; they again were speedily followed by the clubmen. In the old days the battle commenced usually with a shower of stones, and then a rush would be made by the first line, armed with the *uok*, the second line, armed with clubs,

following on their heels. The chief, with his *hoag*, was usually in the centre, and here there were three lines: the *uok* men and then a few men armed with a shark's-tooth weapon, the *oikoaga*, and lastly the clubmen, among whom was the chief. The young men and boys during the whole time kept up an incessant fire of stones over the heads of these lines, and acted on the flanks. Stones held in the hands were likewise weapons used in close quarters; they were termed *hofso*. The best of these were made out of one of the bivalve shells of the giant *Tridacna*, ground down to a more or less oval shape. A groove, too, in them was commonly worked for the thumb, so that a firmer grip might be obtained. Others were of lava or basalt, and were used indifferently for striking or throwing. The *oikoaga* was described to me as a weapon, about 6 feet long, with a long round handle, 1 inch thick, knobbed at the end. The other end was broadened out to about 5 inches, and set between slips of bamboo, tied on, were the re-curved teeth of a shark, probably one of the *Carchariidæ*. The top of the handle was described to me as paddle-shaped. It was always a very rare weapon, and much prized. I have the end of one 27 inches long. The central stick has evidently been smoothed down with great care with a shark's-skin file, and holes have been bored completely through it for the sinnet, with which the teeth are tied on. Two or three holes are bored through the several teeth for the sinnet, which is exceptionally neatly made. The bamboo slips are underneath the sinnet; their object is evidently to keep the teeth in their place on the edge of the main stick. The idea of the weapon was to seize an enemy with it and draw him out of his line, while one of the warriors of the third line clubbed him to death. Another shark's-tooth weapon was the knife, *oi fo pilte*; I am not certain, though, whether it was really a Rotuman weapon or not. The one in my possession is about 28 inches long, and seems typical of the Tokalau, or Gilbert islands. The handle is in section nearly square and about 6 inches long; the teeth are not recurved, and are set in two grooves, cut in the edge of the sticks. The teeth are firmly bound on with sinnet through one hole in each tooth, while the holes through the stick are set well back. The groove for the teeth stops short about 1 inch from the end, which is somewhat pointed.

The club, or *oipeluga*, is of the general type shown in Mr. Edge Partington's illustrations; its length is from $3\frac{1}{2}$ –4 feet. The transversely carved lines of the end are very characteristic. The transverse section here is that of a much-flattened rhombus, and these lines rise from the sides to the centre at regular intervals, and join with those of the opposite side on the same face

of the club. They are cut regularly from the bottom for 2-3 inches perhaps, and then one on one of the sides of the rhombus is left uncut; it will be cut in the other three sides of the rhombus. On the other side of the rhombus, on the same side of the club, it will be the next of these grooves that will be left uncut. On the other side of the club two neighbouring grooves to the above will be left. Then perhaps all will be cut for another interval of 2-3 inches, and four will be left uncut precisely as before. At the top of this part, they are not always the two next one another that are left uncut. This cutting I believe to be quite typical of Rotuma; the three in my own collection are all carved in this way, and so likewise are one in the British Museum and one, which I saw in Fiji. Two in my possession have carved handles; all the carving is in straight lines, but on one are some figures of sharks and lizards. One club in my possession was used by the great-grandfather or granduncle of Marafu in the war against Riemkou about 1800 (p. 473). The balance of all is excellent and well adapted to their use as two-handed swords. Used as an axe, like a Fijian club, they would not be nearly such efficient weapons. The spear, or *jou* (p. 463), was not used for anything save processions, but the *uok*, a pointed stake about 8-9 feet long, took its place; it was described to me as generally perfectly round, pointed at both ends, and used for both thrusting and striking.

The earliest war remembered is spoken of as the "great Malaha war." There were two brothers, Kunou and Maragsou, who lived with their sister Suogmasto in Malaha. In their turn on the occasion of a feast, the three prepare food, and carry it to the *sou*, who was at that time dwelling in Savelei. The brothers placed their food on the ground outside the *sou's* house, or *sou ura*, but the girl, being of a chief family, entered to place her food in the *kokona* (p. 422). She was then made to place it on the ground, and told to stop with the *sou*. The *sou* in fact wanted to make Suogmasto his *fanhoga*, as he had a perfect right to do. The right, however, was not generally insisted upon, and here the great insult came in in the fact that he had not sent his old *fanhoga* away first, nor sent his *tonhida*, or messenger, and other officers to summon Suogmasto and escort her to him. After the feast the brothers found out about the insult, and accordingly took Tua, the chief of Malaha, and made him the *sou*, establishing him in Matusa. But soon they took him away from there and brought him back to Malaha, leaving his cousin, a Malaha man, called Froumontou, to look after everything in Matusa. Riemkou, on Tua's return to Malaha, at once proceeded up the island to Matusa, and conferred the

office of *sou* on Froumontou, who had managed to much ingratiate himself with the people of Itoteu and Itomotu. He then took him along the south side of the island, and established him in Faguta. In consequence of Riemkou's action, Marafu stepped in, and as a result the sides in the war were Noatau, Oinafa, and Malaha *v.* Faguta, Itoteu, and Itomotu, or Marafu *v.* Riemkou. The fighting is said to have taken place all along the line, to have been continuous for several days, and the slaughter to have been enormous; nearly all the young men on both sides are said to have been killed, and many whole villages to have been completely depopulated. The brunt of the fighting really fell on Noatau and Faguta, but in Malaha alone over one hundred are said to have fallen. The date is given by Froumontou, who was the paternal great-grandfather of Albert. Albert is about sixty-six years old, and, if to this thirty years is added for the two generations between him and Froumontou, the date would be placed at the beginning of this century.

There was another war, in 1858, between Malaha and Itoteu; the indirect cause was Christianity, which Malaha had embraced, while Itoteu still remained firm to its old religion. In it Malaha was worsted, and lost about fifty killed. A ship present at the time assured the victory to Itoteu by lending them guns and other weapons and sending her crew to assist in the fray; they afterwards, too, took away a considerable number of men from Malaha as labourers.

After the "great Malaha war" was a long period of quiescence, due to the exhaustion of both sides and the changes, which naturally followed the coming of the white man. The enmity between Marafu and Riemkou still however continued, and was only waiting for an opportunity to give rise to open hostilities. At last about 1837 Marafu obtained a small cannon off one of the whalers, and an opportunity was soon found. The immediate cause seems to have been that the chief of Teukoi, in Itoteu, passed by the *sou* in Faguta in his canoe without lowering its sail. At the time he was on his way up to see Marafu, to beg a pig from him to take to a woman in Faguta, as a *faksoro* for some offence or other. Riemkou, as, when the *sou* was in his district, he was his protector, was furious at the insult, and arranged to intercept the canoe on its return to Teukoi, but this failed, as the canoe was taken home along the north side and round the west end of the island. Messages passed in consequence between Riemkou and Marafu, but the latter settled the matter by going up to Teukoi along the south side and passing the *sou* with his sail set, and without loosing his hair. Riemkou then sent to Marafu to challenge him to return along the south side of the island, and

received a reply from Marafu that that was what he intended to do. Meantime the Noatau people came through the bush to Teukoi, dragging the cannon with them. This cannon is said to have been the first firearm used by the natives in war. That night a big dance was held in Teukoi, and on the following morning Marafu moved up along the south side and met Riemkou in Faguta. At first the cannon struck terror into the people of Faguta, but they soon rallied, as after the first few shots it got clogged, and a fierce battle ensued. More than one hundred of the Noatau men were killed, and among these Marafu, but the war was quickly concluded, as Riemkou allowed the Noatau people to carry the body of Marafu away and bury it on the hill of Seselo, as he had formerly been *sou*; the cannon also was taken away and placed as a gravestone over Marafu. A great number of pigs and an immense quantity of vegetables and mats were paid as indemnity and for ransom. The loss on Riemkou's side is said to have been but slight.

The office of *sou* was abolished after a war known as the "Matusa war" in 1869 or 1870. While the rest of the island was for the most part Roman Catholic or Wesleyan, the south side of Itoteu and to some extent the north side also still clung to the old religion; the people of Matusa and Losa, and indeed of the whole of the west end of Itoteu, were Christian. Taurantoka was chief of Itoteu, and had a *sou* in Savelei; Morseu was the minor chief of Losa and Halafa, while Mafroa was acting for his father along the north side of Itoteu; none of these were Christians. It really commenced by Morseu keeping on continually taking pigs from Losa and Halafa, till these places got exasperated and refused to give him any more, threatening to shoot any one, they might find taking them. Their leader in this was Fakamanoa, a big name in Itoteu, and the father of its present chief. Induced however by a native Fijian missionary, they took as a *faksoro* to Morseu a pig and a root of *kava*. He accepted it, but on the next day seized a pig, and on the day after, trying to seize another, he was resisted, and a deputation sent to Taurantoka with a root of *kava*; Taurantoka, in reply, promised to take Losa and Halafa under his own charge. Meantime Mafroa and his father had been baptised into the Wesleyan body, and refused *ipso facto* to have anything to do with the *sou*. Taurantoka at once declared war; the white missionary stepped in and tried to stop it, but a fight was inevitable. It was then the south side of Itoteu, under Taurantoka and Morseu, against the rest of Itoteu, under Fakamanoa, Mafroa, and Albert. The latter was a man of considerable influence, owing to his connection with the missions, of a chief family, and living in Matusa. The battle

took place almost in Matusa, on the road along the south side of the island, at dawn, lasting till midday. Nearly all the fighting was on the relatively open beach flat; it consisted of desultory firing from behind cocoanut trees. About sixty of Taurantoka's people were killed before he took to flight. As a result the office of *sou* was abolished, Taurantoka and Morseu baptised, and Albert, who had shown throughout very conspicuous bravery, made chief of Itoteu.

The last great war was in 1878, and was practically Wesleyans *v.* Roman Catholics. Really it was largely brought about by white men, working on the old enmity between Marafu and Riemkou. It arose through the intrigues of Albert, who wished at the council meetings of the chiefs to get his name called for *kava* before that of Tavo, the chief of Oinafa. Riemkou was supporting him, as he was jealous of Marafu, who was both chief of his district and *fakpure*, or head chief, of the island. Albert then in a meeting at Oinafa brought up his own matter and that of Marafu's two offices; Marafu replied through his brother Hauseu, who was his spokesman, or *hoasog*, that, as far as the chieftainship of his district was concerned, it was no business of theirs, and that, as he was entitled to receive the *kava* first, it was his business to see that it was called to all in their proper order. Riemkou did not attend the next meeting of the council, and, as he refused to pay a fine, it was considered equivalent to a declaration of war. A white missionary then, called Moore, seems to have gone to Albert, and also into Malaha and Oinafa, practically preaching a war against the Roman Catholics. As a result, Riemkou brought a *faksoro* to Marafu, who accepted it; and to settle the matter Riemkou let himself be baptised a Wesleyan. The Wesleyans, who had begun to gather, were dispersed, and Riemkou at once turned Roman Catholic again. Marafu, who at that time was called Hauseu, informed me that then there was no question of war, and that the affair was considered settled until this missionary came and practically began to preach a war of extermination against the Roman Catholics. Accordingly the Roman Catholics gathered in Faguta from the whole island, and prepared for resistance, digging out the interiors of their houses for rifle pits. The result was never for a moment doubtful. On the first day twenty-two men were killed, and the Roman Catholics driven on to a small isthmus, where they were blockaded for two months. At last Riemkou was killed, and all submitted. Throughout the whole war Marafu protected the Roman Catholic missionaries, their church and property, and steadily refused to allow any land to be taken from the conquered.

XVII. CANNIBALISM.

It was not the custom to cook and eat the slain after a battle; indeed, it was held in the greatest abhorrence. There has been, however, an account of one such act transmitted down. It is said to have occurred in a period of very great famine after two successive hurricanes, when nearly all the pigs and food had been consumed.

Koufossi, the son of Riemkou, chief of Faguta, was the *sou*, while his wife was a girl called Hapta, who belonged to, and had three brothers living in Itomotu. By her he had a son, called Timora. During the famine the three brothers came down to see Hapta, and offered to take Timora to Itomotu, as there was more food there, and the famine was especially bad in Pepji.¹ Koufossi at once allowed them to take the boy, and told them to feed him with anything fresh they could procure, meaning human flesh. They then started for Itomotu, and, as they were passing Tarasua Point, they saw a bunch of bananas, which they proceeded to cut down to make food for the boy. After they had made a fire and oven to cook the bananas, the owner's wife came up and asked them who had given them leave to take the bunch. They then tried to put her off, but without avail; so one made a sign to the others to keep her attention occupied, while he came up behind and killed her with one blow on the head with a stick. They then roasted her, and, after feeding the child, finished the rest of her between them. Later on they killed the woman's husband, Taipuni, and his brother, eating them likewise. Finally the three brothers were stoned to death on the reef flat in front of Itomotu, and then eaten by the man and woman's relations, their bones being all placed in one hole.

Timora lived to manhood, but was unfortunate in everything that he undertook and never able to get a wife. He was finally killed, when quite an old man, by having his head crushed by a stone in battle.

XVIII. MARRIAGE.

Until a girl was married, she was practically free to form what connections she desired, but she was not allowed to sleep in any other house than her parents'. It was considered no disgrace if she bore children, and it would not operate in any way to prevent her getting married. Indeed, a child acted

¹ There is no *papoi* land in Pepji, while there is a large swamp in Itomotu (see p. 420).

in the other way if she wanted to marry into another *hoag*, as it proved her fertility. As soon as she reached a suitable age, usually about 15 years, she was given a screen in her parents' house to herself. Here she might be visited nightly by the men, and all the courtship took place; a door for their entrance was usually left unfastened. Fornication is said to have been exceptional. The parents were supposed to be ignorant of any visits to her. No violence was ever offered; to escape she simply left the screen and entered that of her parents. Men were valuable to the *hoag*, and her duty was to attract a man, who would enter her *hoag*. The marriage was arranged by the parents, all overtures coming in most cases from those of the girl. Having fixed on a suitable man, they then visited his parents, taking with them a cooked pig and some taro as a present. In the case of big chiefs or owners of the family name, or if the man belonged to a very rich *hoag*, matters were usually arranged the other way, so that the girl would enter the man's *hoag*; his parents then made the overtures. In all cases the consent of the *pure* of the several *hoag* had to be obtained; marriage in the *hoag* was forbidden, and also that between first cousins. A grandchild of a man and wife might marry his or her *hoisasiga*, second cousin, if he or she was descended from the *seghoni*, the man's sister, or the *segrevene*, the woman's brother, but not, it was distinctly stated, if the descent was from the man's brother or the woman's sister, both of which relationships are expressed by the term *sosoghi*. The same terms I understand to have been used of first cousins to one another, in accordance with the relationships of their parents. The term *oifa* applies to the father or uncle, and *oihoni* to the mother or aunt.

The affair being settled, the relations and friends of each party meet, and make arrangements as to the date and what each shall bring to the feast. Every one who is in the least degree a relation or a friend is invited, and a portion allotted to them. Thus, at a small wedding hundreds will be present, while at a large one there may be more than half the island, and as every one has to bring something, the quantity of food, etc., is often very great. All is ready cooked, and consists of pigs, taro, yams, *dahrolo*, and roots of *kava*, while the women bring mats.

At a wedding between two Noatau people, and this by no means a large one, in front of the bride's parents' house was erected an awning of cocoanut leaves, while similar ones were placed some yards away at right angles to the right and left. In the right-hand one sat Marafu, the chief of the district, while under the opposite awning to him were the near male relations of the pair. In the centre of the awning between was

a pile of mats, and round these were sitting the women and girls, to the number of about 250. In their midst sat the *maping*, the woman who weaned the bride, and also her *sighoa*, or namesake. The former directed every ceremony of the feast, while the latter had under her charge all the arrangements and divided out the food after the feast. The bride and bridegroom presently arrived from the religious ceremony, and seated themselves on the pile of mats. At once a procession from the man's *hoag*, which had been sitting down a short distance away, came forward; they brought an immense pig, carried between two poles by eight men, a bullock with four carriers, three pigs with the same, three pigs with two carriers, an immense root of *kava* with four carriers, and, lastly, came about twenty men and boys each with a couple of baskets of food or roots of *kava* on a stick on one shoulder. These were placed down in a heap on the right, and the bearers at once retired to join the men, who were sitting under the trees at some distance. A small heap had been previously placed in the centre; this, and this alone, was cut up and distributed in the feast, which at once followed. The *maping* now ordered the feast to be served; the *kava* was chewed, and, when it was ready, the first bowl was handed to her. She did not drink it at once, but suddenly rising, snipped a pair of scissors two or three times over the left temple of the girl. This is the sole survival of the *ufaga supu*, or "the clipping of the *supu*." Among the women one lock of hair, the *supu*, was always kept separate and never cut; it fell from the left side of the head over the left breast. It was only cut, when the girl was married, or if she had a child. Now, no lock of hair is thus kept, and there is only the pretence of what was probably once the important part of the ceremony.¹ *Kava* was then brought to the bride and bridegroom, and the feast commenced, the bride and bridegroom eating off the same banana leaf. The feast at a marriage differs from all others: the men almost entirely serve it to the women, and man and wife eat off the same leaf. After the feast, more processions of food arrived, and were placed either with the man's pile, on the right, or the woman's, on the left. There were in all two bullocks, thirty-seven pigs, about one hundred and fifty baskets of taro, fifty baskets of yams, and fifty roots of *kava*. The *sighoa* now proceeded to direct the division of this, so that each should return home with a share; the mats, too, were similarly divided, anything given by the woman's side being handed over to the man's side, and *vice versa*.

During the next six days the pair are fed about once every

¹ It was suggested to me by the late Mr. George Peat, of Rotuma, that this lock was a kind of guarantee of virginity.

hour, and continually watched. For the first three days, they remain in the woman's house, but on the fourth are decked out in big mats and flowers and brought in procession to the man's house. After the sixth day they go to whichever *hoag* they are going to live in; a usual arrangement at the present day is for them to live half the year in each. In the old days there was no procession to the man's house, if he was to live with the girl's *hoag*. Of course such a method now often leads to the separation of the pair, the wife going back to her old home. The husband then cooks some taro and a pig, which he takes to her, after which she is bound to let him remain with her, or go with him, for one night. Adultery of the man or woman was punishable by club law, but apparently only on the man in fault. Herbs to procure abortion are not unknown, but the more usual method used to be for the woman to go into the water and deliver herself there.

Most parents take great pride in and care of their children. In cases of illness, they would do more for another man's child than for their own parents, if old. When a child is born, the mother is at once washed and smeared over the breasts and abdomen with turmeric; the plaited top of an old *taktakoi*, or man's dress, was generally used as a bandage around the abdomen, which was bound up very tight. The child is washed as soon as it is born in cold water and smeared with turmeric, especially over the head, to make the bones join properly; the head is indeed constantly smeared for the first year. There is no difficulty about parturition, and miscarriages are almost unknown. I have seen the mother bathe in the sea in the evening, when she had been only that morning confined. The operation was formerly performed by priestesses, but now by any old woman, very likely the woman's mother. The next few days the mother remains at home and is visited by all her relations and friends, each of whom has to bring a present, the only occasion when one is given and not returned. More than one child at a birth is rare. A few years ago a woman had triplets; such a thing was quite unheard of before. In reference to this case, Albert believed that there must have been three different fathers, one for each child. The *sighoa's* (or namesake's) house is to the child as the mother's house; often it used to lead to adoption. On the fifth day a feast is held for those present at the birth. The mother suckles the child for a year (two Rotuman years), during which her husband used to leave her at night. Then a great feast is held, most of the food and mats being given to the *sighoa*. The *maping* now takes the child to her own house for one Rotuman year, and weans it. At six years old *sere*, or circumcision, was

performed by one of the priests in the bush, the prepuce being simply split by a limpet shell, its full removal generally being performed later. The tattooing of the boy followed at the age of thirteen, and, when it was completed, he became a man; if a chief, however, as soon as it was commenced, he was systematically taken in hand by the women and taught fornication. As different parts of the tattooing were completed, there were feasts, accompanied by various religious ceremonies, in the course of which all the *atua* (pp. 466-8) who had anything to do with the boy's *hoag* were called upon; they were in no way accompanied by scenes of unnatural vice.

The remarks on Polynesia of Professor Letourneau¹ will not apply in any way to this island. The women do no field work, and could not be regarded in any way as among the chattels of a man. The language is not chaste according to our ideas, and there is a great deal of freedom in speaking of immoral vices. In this connection a man and his wife will speak freely to one another before their friends, and perhaps indulge in a little chaff. I am informed, though, by European traders well conversant with the language, that there are grades of language, and that certain coarse phrases would never be used to any decent woman, so that probably, in their way, they have much modesty, only we cannot appreciate it. Their dances in the old days would have been, I believe, scarcely immoral or indecent in our sense. Of a Tongan dance, recently introduced, Marafu told me that he had never seen a Rotuman one as bad. According to the old men, married people used to be exceedingly faithful to and jealous of one another; I have constantly been told, in referring to divorces, that "it was not so in the old days." I was given to understand that divorce could only be brought about then by the one, who desired the separation, buying off the other with great presents of food and mats.

XIX. TENURE OF LAND.

Even in such a small island there was at all times a marked line of distinction between the coast and hill people. The latter lived in certain towns and villages along the inner slopes of the hills, and cultivated exclusively in the great central valley. As a rule, they possessed no land or rights outside of this valley, nor had they any claim on the shore waters, *i.e.*, the broad boat channel, 4-5 feet deep at low tide, between the reef and the shore. They were to some extent under the rule of the coast people, and were only allowed to come down to the coast at certain times. The outer reef,

¹ "The Evolution of Marriage," 1891.

however, was considered as common property by both peoples, but the right to cross the waters of the boat channel had to be paid for, generally in a basket of taro or yams every year, *i.e.*, six months. Between the two peoples as such no wars were waged, nor do the hill people seem to have taken much part in the different wars between the coast districts. The centre of the eastern division of the island was strictly divided up between the different districts, but its people really formed a division to themselves, many having planting rights over lands in several of the districts. Most of their descendants had really either little or no land in their possession properly, or have made exchanges so as to get it all close together. This has in the last thirty years been greatly facilitated by the priest (or *faha*) of the Roman Catholic Mission at Pepji, who systematically set to work to get all the different isolated pieces, left to his church, into one block. Two several families, however, from Hoite, a big town formerly situated almost at the junction of Noatau, Oinafa, and Pepji, have still planting rights in all these three districts. There was a little west of this, below Sol Satarua, another large town, Rahiga, and in one village on Sol Hof in 1861 there was a church. At the other end of the island, on Sol Mea, was Lugula, with about forty grown men in 1845, while at the same time Halafa, near it, had about the same number. The latter is now in the possession of one family, with nearly all its lands, with the chief name Titopu, which properly carries the chieftainship of all this part of Itoteu. This *hoag* now consists of about nine persons, who live principally at Maftau, but have houses at Halafa. These hill people have only left traces of themselves in their ruined villages here and there, and in numerous legends of individuals. The former were very compact, with massive and well-built *fuagri*, or house foundations; their graves, too, were on very high foundations, or at the top of some hill, or neighbouring elevation. All giants, strong men, etc., are represented in legends as coming from the hills, and the hill people generally are stated to have been in stature bigger than the coast people. Graves, dug up on Sol Hof and near the old sites of Rahiga and Lugula, were only 1-3 feet deep. The bones were too much broken and decayed to be brought home, but from their appearance might well have given rise to the latter statement. Above Rahiga they seem to have been buried in a sitting posture, but a diligent search gave no implements or weapons. I am inclined to believe that most of the inhabitants of this inland division to the east of the isthmus were really tenants of the coast people. There were undoubtedly a few *hoag* among them, but the number of family names among their

descendants is very small. Possibly they were the original inhabitants of the island, conquered by some subsequent migration and recruited from the overcrowded *hoag* of their conquerors. First-fruits were rigidly exacted by the chiefs of their districts, and the coast people seem to have had rights of planting on any of their land, not occupied, without any recognition of their ownership. They have always been looked upon as a dying-out people, and the number of their descendants is in no way proportional to their known population of fifty years ago.

No private property in land formerly existed; it was all vested in the *pure* for the time being of the *hoag*; the district generally had no rights over it. It usually consisted of four kinds: bush, swamp, coast, and proprietary water in the boat channel; common to the *hoag*, too, were wells and graveyards. Every member of the *hoag* knew its boundaries, which consisted of lines between certain trees or prominent rocks, posts, and even stone walls. In the bush land every *hoag* possessed property; it lay on the slopes of hills and in valleys between at some slight distance from the coast, from which it was separated by a stone wall, running round the whole island. On it taro, yams, bananas, plantains, and a few cocoanut trees were grown for food, while the paths into it and through it were planted with the Tahitian chestnut, the *fava* tree, and the sago palm. The Tahitian chestnut and *fava* trees were favourite boundary marks owing to their size and longevity. Swamp land is only possessed by Noatau, Oinafa, Matusa, and Itomotu. It is low-lying land, on extensive beach sand flats, which exist in these districts. The tide always keeps it wet, percolating through the sand, and in it is grown the *papoi*, or *broka*, against famine. The possession of a good-sized strip always caused and gave to the *hoag* a position of importance; its boundaries were stones at the sides. Coast land lay outside the surrounding wall, to which the *hoag* had a strip from and including the foreshore. On it as near as possible to the coast the house or houses of the *hoag* were placed, while the rest of the land was planted with cocoanuts for drinking purposes. *Hifo* trees are stated to have been planted formerly to show the boundaries, but they more often now consist of stones or cocoanut trees, the ownership of which is a constant source of dispute. Districts and even villages were sharply marked off by walls down to the beach. All had the right of turning out their pigs on this land, and each *hoag* had to keep in proper repair the parts of the wall adjacent to it. Each had, however, usually an enclosure on its own land for its own pigs, when young. The proprietary water ran from the foreshore to the

reef, a continuation of the strip on shore. At Noatau and Matusa, where it is very broad, it was to some extent cross-divided. It consists of a sand flat covered by 10-12 feet of water at high tide. On it fish of all sorts are caught by traps and various devices, and shell-fish are gathered. As these form no inconsiderable portion of the daily food, indeed the principal animal food, the value of this property was always very considerable. The reef—*i.e.*, the part on the outside exposed at the low tide—was the common property of all. It was explained to me that fish, crabs, etc., cannot be cultivated there owing to the heavy breaking seas, but are sent up by the *atua*, or spirits.

The manager of this land for the *hoag*, its *pure*, is usually the possessor of the family name or, if he is too young, its oldest living member. His duty is to divide out the bush land year by year to the different households of the *hoag* for planting purposes, and to settle all disputes between its members. Further he has to take care that a proper number of cocoanuts are planted to take the place of the old trees, and to see that the walls are kept in proper repair. The swamp land is cultivated by the whole *hoag*, but if one part of the boat channel is especially fed by one member, she gets an especial right there. On occasions, when the whole *hoag* is interested, such as the repairing of the great wall of the island, the planting of the *papoi* land, or house-building, the *pure* has the power to call all its members out. His principal duty now is to see to the getting of the copra for taxes, deciding what each household has to make. The first-fruits of each cultivated patch were brought to him: a basket of taro or yams, or a bunch of bananas. For all marriage or other feasts of any members of the *hoag*, he was the head, and generally nothing could be done without consulting him. Over the land the chief of the district had no rights, except to order necessary repairs to fences or the keeping up of paths. In Faguta, however, he claimed first-fruits from all. Any land, not being planted, is willingly lent to another *hoag* on condition of two baskets of first-fruits of each patch being brought to the *pure*, but cocoanut trees on the land cannot be touched by the tenant, nor is he entitled to their usufruct. If a *hoag* owns land in one district, but lives in another, first-fruits are always paid to the chief of the district, in which its lands lie.

Any encroachment on the land was very vigorously resisted; it was usually referred to the district chief to settle, and his decision loyally adhered to. Adoption into the *hoag*, with the consent of all its members, was frequent, the man so adopted losing all rights in his former *hoag*. Marriage, too, was

another method of recruiting the *hoag*, the husband very generally, though by no means universally, coming to live with his wife, and the children belonging to the mother. As most of the *hoag* have far more land than they can cultivate, children without fathers were, and are to some extent, especially welcomed. When a wife dies in the *hoag*, the husband if he does not belong to it, as the corpse leaves through one door of the house, is pushed out of the other, signifying that he now has no right in it. By the above means the *hoag* rarely became extinct, though the family name has frequently been dropped.

In recent years, very generally, on the *hoag* becoming small its land has been divided out severally among its members, thus creating private property in it. Since the introduction of missionaries, too, much land has been seized by the chiefs, who, as a rule, in each district were its missionaries, as fines for the fornications of individuals. A certain amount of cocoanut oil was then given by the chiefs to the Wesleyan Mission, apparently in payment for their support. The mission in the name of which it was done, though generally without the knowledge of the white teachers, was so powerful that the *hoag* had no redress. The mission and chiefs obtained this power as the result of many wars waged against the adherents of the old religion; the confiscation of all the lands of the vanquished was proposed by the mission, but resisted by all the chiefs. Much land left to and bought by the Roman Catholic Mission is similarly situated; the individuals had no right to dispose of it without the consent of the whole *hoag*. The children of a marriage now, under British rule, have rights in the land of both the parents, so that they belong to the two *hoag*; in time the whole island should become absolutely communal. Property, too, in wells and the reef waters is now comparatively little recognised.

Private property to some extent existed in domestic animals and manufactured articles. When a man was dying, he usually gave them to some relation or friend, who may have been taking care of him. If a man's sons and sons-in-law were living and planting with him, on his deathbed he might apportion out the planted land to each, but the land was none the less under the *hoag* and subject to the payment of the first-fruits to its *pure*. If he had planted more cocoanuts than required by the *hoag*, he had the entire usufruct of these trees during his lifetime, quite independently of the apportionment of the land below them for planting. If in old age a man was neglected by his descendants or *hoag*, and taken care of by a stranger, he often gave him for his lifetime the usufruct of these trees and the crop of any plantations, he may have before

his death cultivated; it only extended to the single crop: subsequent planting was not allowed. Slaves as such did not properly exist; Polynesian or Micronesian strangers, *fa helav*, were usually married into different *hoag*, or adopted with the consent of all the members of the *hoag*. A few Fijians and Melaneseans have become *fa asoa*, or helping men, of different chiefs; no women would have anything to do with them, and no *hoag* would adopt them. They remained on the island as long as they liked, and transferred their services as they liked; they were treated as inferior members of the *hoag*, to which they gave their services. A few women of low caste have in recent years married Fijians, but there is only one case of a Fijian woman being married by a Rotuman. No trouble was taken about burying these *fa asoa*; they were usually buried on some islet on the reef, but some Maoris, who were brought to the island in a whaler at the beginning of the century, were exposed on the top of the islet of Husia, off Noatau.

XX. SPORTS, GAMES, AND TOYS.

In times of peace meetings used to be held between the different districts for cock-fighting, wrestling, canoe-sailing, etc. For the former the chiefs used to breed a small cock, somewhat similar to the Malayan fowl; great care was taken in the feeding, and the spur was especially sharpened and oiled. Usually pigs were put up on both sides, and went to the conquerors.

In wrestling any fall to the ground counted. The chosen champions watched each other carefully from a distance, and then, perhaps, one would rush on the other and make a feint, only to turn aside when they seemed bound to come to close quarters. The great idea was to get one's opponent, from the nature of his or your rush, into an awkward position, so that he could be seized round one thigh, and could not avoid a fall.

Canoe-sailing was carried on, especially on the occasions of certain big feasts in connection with the *sou*. The canoes employed were the small ones, the *tavane*, with mat sails. In each canoe only one man sailed, and the different districts would contest for the prize with ten, twenty, or even more representatives. There were also commonly canoe-races for the women. The course was always inside the reef, and much fun was caused by the constant capsizing of the canoes.

The Fijian game *tiga*, or *ulutoa*, used to be very popular; it is now only played by the boys. Properly it seems to be a Fijian game, and was doubtless introduced from there. It is

played by throwing from the forefinger, covered with a piece of cloth, a reed about 4 feet long, armed with a pointed piece of hard and heavy wood, 3-6 inches long. It is thrown along the ground, bouncing over it, the winner being he who can throw it furthest.

The shooting of a large rail, the *kale* (*Porphyrio smaragdinus*, Temm.) was taboo to all, except the chiefs. For it, it is stated that small bows and arrows were used. A captive *kale* was tied up in the middle of some open space in the woods, and round it the chiefs hid themselves in the trees. To some extent the captive bird was trained, but in any case it would attract other birds of its own species by its cries. The possession of a well-trained bird always gave a chief a position of consequence among his fellows. The bows and arrows were, as far as I could find out, mere toys, and had no other use.

Hatana and Hoflewa, uninhabited islands off the west end, are regularly visited for the eggs and young birds of the *nogo* and *laga*, two species of *Anous*. The adults were caught by means of large hand-nets, the birds being attracted by an imitation of their cry, a sort of cor-r-r-r, at which the natives are very proficient. The young birds become very tame, and readily return to their masters. Flying contests between different birds were not of unfrequent occurrence.

Of musical instruments the nose flute is now well known; it is of exactly of the same type as the nose flute of Fiji, and very possibly has been introduced from those islands. The few I saw were rough and made of very small joints of bamboo; I never came across any one in Rotuma who could get a tune from one. I saw also an instrument closely resembling Pan's pipes and a sort of Jew's-harp, made with a spring of bamboo. For none of them could I get any Rotuman name, so that I am compelled to regard all as foreign. The conch shell is much used in the bush for calling the people together, and also the chicken to their daily meal. The drum has already been referred to (pp. 458-9); it is used for summoning the village to church or to any meeting.

The children have a ball made square of cocoanut or pandanus leaves, and sometimes stuffed with grass. On windy days they may perhaps be seen with little windmills by the sea-shore. These are made of two crossed bits of cocoanut leaf on the end of the midrib of one of the leaflets. The kite also is not unknown. I saw one in Juju which was evidently of European design; another old one I saw in Losa was quite round and made out of an old mat, somewhat bellied, on a frame formed by the midrib of a cocoanut leaf. It had the remains of a tail, pieces of cocoanut leaf tied at equal intervals

on a string of sinnet. I could not ascertain how far these were of Rotuman origin.

On moonlight nights the beach is alive with the girls and boys, singing and playing all sorts of games. A favourite one of these is a sort of "prisoner's base"; a kind of base is marked off, and then one side hides, while the other side searches for them; they have, if possible, to get back within this base. In another two sides are formed, and join opposite one another hand in hand; they then, singing, advance and retreat from one another or dance sideways up and down in front of one another. Then, when the one side has managed to get the other all moving in the opposite direction, it suddenly turns, while the other side pursues it down the beach and tries to surround it. Another game ends up in a tug-of-war, each clasping the one in front round the waist, while the two strongest of the opposite sides have hold of each other's wrists. In another two rings are formed, the one inside the other; they face towards one another, and dance towards and away from one another or round in different directions in accordance with a song, which both will be singing. It ends up, too, in a general chase of the one line after the other down the beach, and perhaps even into the sea.

Another favourite amusement on the beach is to make a bank of sand, and out of this to scrape a number of holes in the sand. A piece of coral is then taken in the hand and, while these are filled up, hid in one. When they are tired with the rougher games above, the whole beach may be seen strewn with young people, five or six together, playing this game. The unsuccessful in guessing, in which hole the coral has been placed, will be set on by the others, and covered in sand. The most recently introduced game is known by the name of bluff; it is really a kind of "poker," and is now much played for boxes of matches. Women are not allowed to play, but look on and sell cocoanuts, oranges, etc., to the players for boxes of matches.

XXI. SINGING AND DANCING.

The island is curiously deficient in native songs and dances; the people themselves speak of their songs and dances as *furou*, or foreign, except the class which are known under the name of *tau toga*, the origin of which is quite unknown. The term *mak* is applied to the combined song and dance. The meaning of the term *tau toga* is obscure; *tau* seems to be applied to a meeting of several, rarely a considerable number, of people together, while *toga*, or *tooga*, is quite unknown. The words of the songs are in an old language, which is now practically forgotten, and cannot be translated even into modern Rotuman

by the natives themselves. Only a word here and there can be recognised, and from these no sense could be gleaned. Probably the meanings of many of the words have changed with the decadence of the old language.

The *tau toga* may be sung either on the feet or sitting, the time being always given by beating on a folded-up mat with the hand. The song merely consists of one verse, which is repeated generally three times if standing in lines, the lines being changed thrice towards or at the end of the verse. The *mak* is usually commenced on the ground, when suddenly all rise and form quickly three rows, each having three girls on one side and three men on the other, and all facing in the same direction. At the end of the first singing of the verse, the first row becomes the third row, and the second the first, the singers crossing one another directly. The chief motions are made with the hands pointed in different directions, while the feet are firm, knees slightly bent and pointed outwards. At the end of the second repetition, the original third row is in front. With the sudden call of "Oh!" and three claps of the hands at the end of the third repetition, all sit down with their backs towards the front. The time is as a rule very slow; the lines often rhyme, and are in minor fifths. The *mak* always ends with a long "Oh!" three claps of the hands, and a low, deep, drawn-out "Eh!"

THE TAU TOGA.



Ravak e otomutu e mua pipi
Ma sea masoan on oluum
Lagi jau ma hoani se Rotuam
Ko havei i ka solia ikoak.

THE CATERPILLAR.



A - ni - a e ji - ji o a - ni - a e ji - ji e.

THE FUNAFUTI SONG.



Tu - ku ai be si - ko - ni me
Au wa so - ro Fu - na - fu - ti.

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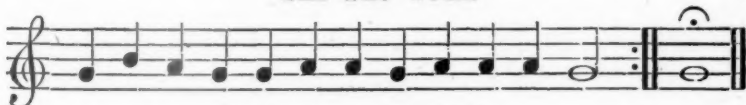
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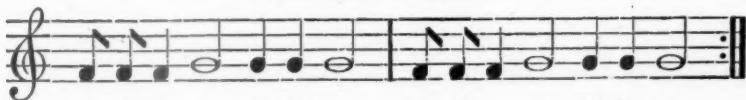
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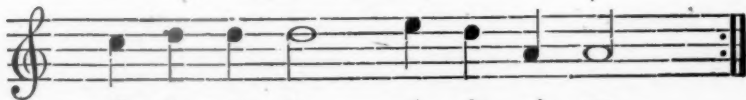
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Lagi jau ma hoani se Rotuam
Ko havei i ka solia ikoak.

THE CATERPILLAR.



A - ni - a e ji - ji o a - ni - a e ji - ji e.

THE FUNAFUTI SONG.



Tu - ku ai be si - ko - ni me
Au wa so - ro Fu - na - fu - ti.

TOKALAU MAK.



Tok(e)rau uog uog
Tir(e) oun far(e)te
Ko fan(o)
Ou fan(ou)re re.

UEAN SONG.



Tau te fu - ri - a tog Te fu - ri - a ni e rau



Mu - ri - a mau e fi - li Tau te e fi - li . . .

SAMOAN SONG.



Te - ne te - ne . . . te - ne su - ku - ti - a



U - fi - a u - li - to - moi se tau - rag man - ai - a.

A particular song, probably of modern growth, may be called the caterpillar, as the motions are supposed to be representative of those of a caterpillar as it crawls up the stem of the *papoi*, straightening itself out, drawing its body up together, feeling for a fresh hold, etc. There are generally three rows, as before, and all move up the house or forward as they sing, nearly bent double.

Of *mak furou*, or foreign songs, there are several which vary a great deal in the movements of the hands, but as a rule are sung in much the same way as the *tau toga*, when sung standing; the changing of the rows is managed by the back row coming round the sides to the front, and not passing each

other in the middle. There are further movements of the feet from side to side, and also of the body. The songs are shorter, and do not necessarily rhyme; they are repeated perhaps two or three times before the rows are changed. The time is given by striking a rolled-up mat, or by the clapping of the hands or the stamping of the feet. Altogether the *mak furou* are more lively than the *tau toga*, and there is in them far more scope for movement.

Among the favourite *mak furou* is the Funafuti song, supposed to have been introduced by a canoe from that island driven on shore here; it is sung with much spirit and go. The Tokalau *mak*, given, is a typical *mak furou*. The next, "*Tau te furiä tog*," is a beach song; it is very rarely sung in the houses, as there is far more dancing in it, movements up and down of the legs, clapping and pointing of the hands, and contortions of the body. The time, too, is much faster, and gets quicker at every repetition. I think that it is not improbably an introduction from Uea or Wallis Island, as it very greatly resembles several of their songs. The last song, "*Tene, tene*," is a Samoan song; it is quite the pleasantest and least harsh of all. The first line is repeated twice, and the whole or a part of the second. It is usually sung in two lines with hands joined facing one another; as they sing these lines dance in opposite directions up and down in front of one another.

To Dr. E. A. Muller, of Sydney, who has heard these songs on several occasions, I am indebted for the music. He has also given me the following note:—"All their songs move between one octave and are sung in unison, except when both men and women are singing together. Then the men sing in a lower pitch, about a minor fifth lower, but do not follow the melody closely, so that they rather keep up an accompanying noise in a lower note. Generally the change in rhythm is very little in the different songs, mostly an andante movement, while some songs, more indicating a humorous theme, are in allegro style. The melody consists generally of three or four different notes, the first one three or four times repeated, followed by a note a third higher and going back to the first, again three notes followed by a higher note or a lower one, finished always with an unharmonious flat note."

XXII. MEDICINE AND SURGERY.

The Rotuman of the present day is singularly ignorant of even the most elementary medicine and surgery. As before pointed out (p. 468), the priests were the doctors; it was a mystery handed down from father to son with the office.

When Christianity began to be taught, and white men settled on the island, the mystery was guarded still more carefully, and most of the art has unfortunately now been lost. At the present day medicines are dispensed by the Roman Catholic priests and the Commissioner, but Fijians resident on the island are very generally called in, if the patient does not recover instantaneously.

The great Rotuman cure for every pain or ache in the body is massage of a very severe nature, either with cocoanut oil or the oil of the *hifo* nut (*Calophyllum inophyllum*); usually a small quantity of the second is applied, and then the part rubbed vigorously with cocoanut oil. Cold water too for many ailments is much believed in. Recourse in fevers used to be had almost at once to cold water bandages, a piece of the native cloth often being left in the water to act as a sort of wick, to keep the whole damp and cool. The natives have no vessel in which water can be boiled, except the shell of the cocoanut, and hot water, too, is never used. It was only by threats that I could get any native to allow me to use hot water for washing any wound or sore, and hot poultices were invariably taken off immediately I left the house. Native poultices are made of the leaves of the taro and hibiscus crushed up; I was also informed by Marafu that they used to be made of dried arrowroot and the dried seed of the Tahitian chestnut, and that a certain amount of turmeric was always mixed with these. The great cure, though, for all wounds and sores is to roast them for several hours in front of a slow fire; I found the skin of one man with acute sciatica absolutely shrivelled up and burnt along the left side from this, massage having been tried first and failed. The practice of cutting the body where any pain is felt, which is common in Fiji, I never found any traces of.

The most prevalent disease in Rotuma is undoubtedly yaws, or framboesia, known generally under the Fijian name of *coko*, though I also heard the Polynesian name, *tona*, applied. It is said by the older men to have been an introduced disease in comparatively recent years. Certainly the older people of both sexes do not seem to have so many or such large scars from it as the younger generations, and on some no traces of it are to be seen. The fact, that the disease is due to inoculation, is well known to the natives, whom I have known encourage their children, when they have reached the age of about two years, to play with other children, who have the disease, in order that they may get it. Commonly the child gets exceedingly feverish, and then suddenly a number of pustular sores break out, particularly on the face, hands, and round the waist. The child may be in danger for some days after this, but usually

the fever quickly dies down; the sores increase in size, and probably cover the whole of the mouth and nose, reaching a maximum in about a couple of months. They then gradually commence to dry up, and if the cure does not take place too rapidly, no further danger need be apprehended, except in combination with extraneous circumstances such as teething, etc. If the sores, when they first break out, are healed too quickly, as by European antiseptic treatment, they tend to break out again in a much more virulent form, and death often supervenes, or else permanent disfigurements of the face, particularly the nose, or even blindness or lameness. The natives say that it is a growth, which has to come out, and that, if it is not allowed to do so properly, it will continue to grow in the bones and deeper tissues. If the child passes to manhood and then contracts the disease, it is generally fatal, or else leaves the man so shattered in health, that he falls a victim to the first epidemic. The child is carefully guarded for the first year and a half against the disease, and then the sooner it comes, the better the parents are pleased. No remedies are applied by the natives, but great care is taken to keep the child cool and damp, when feverish, and its bowels open; a purgative draught used to be made from the fruit of the papaw and certain leaves, but now large quantities of castor oil are sold by the stores. A person, who has once had this disease, enjoys afterwards complete immunity from it; I have seen a mother feed from her mouth a child, whose lips were all swollen with it, without any injurious consequences to herself.

Terrible ulcerations of the skin of the body and limbs, particularly the leg, are not uncommon among adults, especially women, but they seem to be easily cured before the age of from forty to fifty years; they are probably of a granulomatous nature, and are mainly due to the neglect of sores caused by dirt, poisoning from coral, etc. Such sores always at first fester, but, if carefully kept clean and open, heal in a month or two. They are very much neglected by the older people, particularly the women, are often left uncovered and encouraged to heal over quickly, only to break out later perhaps all over the limb, a putrid mass of flesh full of maggots; the mischief has probably now extended to the bone, the foot doubles up, the limb shrivels, and all hope of cure may be abandoned. Similar ulcerations also occur among women, not uncommonly about the age of forty-five, in the breasts; it is in no way of a cancerous nature, as no disease of that kind is known. For all these sores, washing daily with a strong solution of corrosive sublimate has a wonderful effect, especially if accompanied by doses of potassium iodide. I cannot resist the

idea that really these ulcerations and yaws are of a syphilitic nature and give immunity from this disease, which is absolutely unknown on the island; other diseases of a venereal nature too are very rare, owing to the extreme cleanliness of the women.

There is a consensus of opinion among the natives that coughs, colds, pleurisy, and pneumonia have been introduced to the island in this century. This is scarcely likely, but from trustworthy testimony I think there has been a great intensification of them in recent years, due to changes in the mode of life. Undoubtedly, though, phthisis has been introduced in quite recent years; it is a disease of the nature and duration of which the people are absolutely ignorant. I saw myself on the island six cases of it, all in a more or less advanced stage; three were women who had borne children, a fourth was a woman about twenty-two years of age, and the other two were boys of from seventeen to nineteen. Both of the latter cases were in Malaha, where the disease is especially prevalent, owing undoubtedly to the cold damp land breezes at night, its villages being protected to a large extent from the trade winds; I found also in Malaha two undoubted cases of goitre, a disease which I do not remember to have seen in any other district.

Tokalau ringworm (*Tinea desquamosa*?) was very prevalent formerly in the island, but, owing to European methods of treatment, has now become uncommon. In early stages it is readily destroyed by iodine, but chrysophanic acid is quicker, better, and more effectual in the later stages. Besides this, the skin often shows more or less ramifying patches of a lighter tint, but without any desquamation. In some cases these yield to the same treatment, and are, I think, due to a different *Tinea* or some other parasite; in other cases they are perhaps the after-effects of the regular Tokalau ringworm. The only native method of treatment is massage with oil, especially after bathing in the salt water.

Fevers of a malarial nature are not uncommon on the island, but they are much confused with the fevers which always accompany elephantiasis; they are especially prevalent on the leeward side. They are certainly distinct from the fevers of elephantiasis, though this disease usually quickly supervenes and is considered as the result of them. I saw two cases of such fevers, the patient in one case having had them for about two years, and in the other case for longer than he could remember, but in neither case were there any visible signs of elephantiasis. I saw two cases, too, among children of what seemed to me to be mild typhoid fevers; the two houses were within a stone's-throw of one another.

Elephantiasis is certainly the worst disease that the adult

Rotuman has to contend with; it affects the Europeans in the island equally as much as the natives. It attacks the men in particular, at least 70 per cent. over the age of forty years having it in a more or less virulent form; of women over the same age I should think not more than 20 per cent. are affected. Among the men it takes the form in particular of elephantiasis scroti. Of twenty-eight men, fifteen had it in the scrotum alone, nine in the scrotum and legs, three in the scrotum, legs, and arms, and one in the arms only. I never saw any cases among men where the legs were affected without the scrotum also being enlarged. The scrotum does not, as a rule, grow to a very large size until the man gets old, probably owing to the fact that it is usually kept bound up by cloths. When it becomes too large, recourse is had to lancing with a shark's-tooth lancet. In the old days, too, the same instrument was, according to Marafu, used to remove the scrotum, the operation being performed in front of a huge fire and taking about two days. The legs and arms, too, used to be cut right down the surface, the cicatrices being supposed to prevent them from swelling further. Among the women the disease is not nearly so prevalent, but it seemed to me that usually both arms and legs were affected. I saw one case of the form, known as pudendi. From the way it was spoken of, I do not think it is of exceedingly rare occurrence on the island. The second attack of the fever usually comes about six months after the first; then the attacks increase until perhaps they occur for a short period fortnightly, after which they gradually decrease in frequency. There is a distinct increase in size of the organs affected after each attack. Inquiries as to the origin in individual cases gave me such replies as "A night's fishing on the reef," "Sleeping in the bush," etc.; most could give no cause or only supernatural ones.

Periodical epidemics of bad eyes pass over the island; the cornea gets clouded, and sight is considerably impaired. A few drops of sulphate of zinc twice a day in the eyes usually effect a speedy cure; the native remedy is the raw juice of a certain tree with large palmate leaves. Cases of blindness from this disease are now quite common owing to neglect.

Serious diseases other than the above, except such as are of an epidemic nature, are almost unknown. Dysentery passed through the island in 1882, but does not seem to have made a permanent lodgment; constant requests, on the other hand, are made for opening medicine, and doses of four ounces of castor oil are often necessary to give relief. Among the women the menstrual period is often accompanied by headaches, nausea, and amenorrhœa, or stoppage of the menses. In many cases,

though, I believe, these are due to native medicines, possibly preventative, administered by the old women.

The lancets are made with the pointed or serrated teeth of the shark, as desired, tied firmly on a slightly flattened piece of wood, about the size of a pencil, the tooth never being bored. The point of the tooth is pressed on the gathering it is desired to open, and then hit sharply by a piece of stick to drive it in. Broader teeth, with serrated edges, were used similarly mounted for operations in which cutting was required.

It may be interesting to note that I examined the blood of eight males, in six of whom I found the *Filaria sanguinis hominis*; the other two were boys, aged about sixteen and nineteen.

XXIII. DECREASE OF THE NATIVE POPULATION.

The population of Rotuma has undoubtedly been steadily decreasing during this century. It was estimated by the Rev. James Calvert¹ that in 1864 "there would not be more than 3,000 of any generation for whom the Scriptures would be available." In another place he states that there "dwells a population variously computed at from 3,000-5,000."² The Rev. Father Trouillet, of the Société de Marie, informed me that he should estimate the population in 1868 as certainly under 3,000, while Mr. Jacobsen, a trader, estimated the numbers in 1878 at 2,700. Native evidence shows that at the west end about 1870 Halafa had a population of fifty fighting men, while now it has only five; Lugula, on Sol Mea, had then forty to fifty men, but now does not exist; Fatoitoa and Hajaojao, near Halafa, were at least equally big; the former being deserted only twelve years ago; Maftau, Itomotu, and Savaia about seventy men each, while now they have not more than one hundred between them; the island of Uea a total population of about ninety, now thirty. On the other hand, at the west end Matusa has now a considerably larger population.

At the east end in the bush were three big towns: Hoite, Rahiga, and another on Sol Hof, the remains of which I have seen. I think, perhaps, they had about forty houses between them, and allowing eight per house, by no means an over-estimate, the population would be about three hundred and twenty. Besides these, there were many smaller towns in the bush here. On the coast, the *hoag* called Rotuma has now one

¹ "Missionary Labours among the Cannibals," 1870, p. 586.

² *Loc. cit.*, p. 552.

house, while formerly it had about ten. There are, too, plentiful remains of former occupation in house-sites and burial grounds between the centres of population in Noatau and Oinafa; through Juju also there are even more plentiful remains of houses and population. But, on the other hand, at the east end of the island certain centres, usually round churches, at least in Oinafa and Noatau, have certainly increased in numbers, though not to any extent proportional to the decrease of others.

Examining the remains of planting, it appears as if the whole island, wherever practicable, was at one time tilled. The land, where there is a good and deep soil, is, and was, no doubt tilled regularly from year to year, while the rocky country was planted more or less in rotation with yams and *kava*. Even on the steepest slopes, there are signs of clearing, the summits alone being left crowned by the *kifo*. The bottoms of the craters of many hills used to be planted too; in the crater of Sol Satarua, the *lulu* as it is termed, there are still bananas growing, but planted so long ago that the fact that it had a *lulu* at all was almost forgotten.

Taking all the facts into consideration and making all due allowance for exaggeration in native evidence, from a consideration of the facts on the spot, I estimate that the population in 1850 cannot have been short of 4,000, and that at the beginning of the century there were nearly 1,000 more. The census in 1881 showed a population of 1,126 males, 1,326 females, total 2,452, which in 1891 had decreased to 1,056 males, 1,163 females, total 2,219. In this last period of ten years there were four epidemics, viz., dysentery in 1882, whooping-cough in 1884, dengue in 1885, and influenza. The latter was very severe at first; the last epidemic of it was in 1896 and very mild, though the deaths of about eight individuals, mostly old people, must be ascribed at least indirectly to it. If these epidemics had not occurred, the decrease, I feel sure, for the decade would have been very small indeed.

Inquiries from the natives as to the decrease put in the first place the emigration of natives from the island to the pearl fisheries of Torres Straits, to Fiji and elsewhere, as sailors. In the old days it was not uncommon for a hundred or more young men to leave the island in the course of a year, and of these certainly not more than one-third ever returned. In the years, too, of epidemics or hurricanes, still more would leave, though even after the latter there was always sufficient food for the support of all. To this cause and epidemics I ascribe mainly the decrease in the native population. Many epidemics are remembered, though few details are known. When Marafu

was a boy, measles ran through the whole island, and he believes carried off about one person in every house. To epidemics, brought by the first Roman Catholic missionaries (p. 401), he ascribes their non-success and subsequent almost expulsion. Marafu, too, remembers to have heard of an epidemic which followed "the great Malaha war" (pp. 473-4), and was still more fatal. Now, owing to the great cleanliness of the people, good sanitary arrangements, and better food, epidemics are far less feared and less fatal.

Another cause was said to be the increased and increasing immorality of the people with the increased use of preventative medicines, which weaken the mother and future children. As good food as could be devised for the children seems always to have been known, and in recent years the use of tinned milks, so strongly urged by the present Commissioner, has undoubtedly still further diminished the mortality, so that I should not think at present that it is much greater than among the poorer classes of our larger manufacturing towns. The stamping out of yaws, too, I can scarcely think, would be beneficial, as I believe that, if allowed to run its proper course, it gives the child immunity from other and more serious troubles in later life.

Before the greater prosperity of the people generally, together with better living, dating to some extent from the annexation to Fiji in 1880, I think that some slight decrease might be traced to inbreeding, which, I think, may affect the number of the children and the stamina of an isolated people, who have lived for a long period under precisely the same conditions. The customs of the island were opposed to the marriage of nearly-related people, and new blood was occasionally introduced by drifting canoes, so that I do not believe that this could be put down in the old days as a cause of decrease, considering that keen struggles constantly took place between districts, and undoubtedly between man and man. When a new land was colonised by the Polynesian, the inbreeding must have been very great, and yet, in Captain Cook's time, most of the islands in the South Pacific seem to have had large and flourishing populations; the new mode of life and the struggle for existence undoubtedly gave, even under these unfavourable conditions, a new vitality to the race. So I think that now the ready adaptability of the Rotuman to the changed conditions, brought about by the coming of the white man, is undoubtedly preventing the complete annihilation of his race, and is giving it an increased lease of life for many years. The variety of the stocks in the stores, the great quantity of tinned meats and milk, of biscuits and rice, of clothes and dress fabrics sold, show

this adaptability, and are steps in the right direction. Stone houses have now almost entirely taken the place of the old native house, but I doubt whether this is a healthy step. The present Commissioner has done his best to encourage the people to trade, and though his measures are looked upon by many of the older natives with the greatest suspicion, they have during his term of office in the last five years shown a marked effect in a considerable increase of the population, taking the place of the old decrease, while at the same time there have been more natives leaving the island than returning to it.

Undoubtedly the most debilitating disease, that the native has to contend with, is elephantiasis, which has shown no signs of abatement. There is scarcely an adult native on the island, I believe, who has not got *Filaria sanguinis* in his blood; in the few I examined, if I took the blood sufficiently late at night, I never had any difficulty in finding the animal. If the disease is due to this, it might be greatly minimised by the covering over of the wells, so as not to allow the mosquitoes to breed in them. At present all teem with the larvæ. The more immediate cause of the disease coming on seems to be a chill or something of that sort, and these are readily caught by the men from the custom of wearing thick coarse clothes in the day-time, but very thin loin cloths at night; they like, too, to sit about on the beach, after play at nights, so as to get cool. The women, on the contrary, always wear thin loin cloths, and at night commonly a sort of blouse as well, and for this reason do not show the disease nearly so frequently.

The drinking of *kava*, now interdicted by the Wesleyan Mission, was, I believe, most beneficial; the effect is that of a mild tonic. It was not drunk at any time extensively by the very young men, but supplied a tonic at that period of life at which it was most needed. Elephantiasis comes on especially about forty, when a man has passed his prime, and I think that this interdiction has tended, and is tending, to increase the disease, and should be abolished.

It is interesting to note that the few white men who have married Rotumans have, as a rule, had very considerable families; Marafu and others counted up one night nine cases with thirty-nine children known to have lived beyond the age of childhood. Many of these half-castes are now married to native men or women, and generally have by them large families; the next generation becomes merged with the Rotuman, but still shows increased fertility. This factor in the increase of the race is now a small one, but it is steadily growing in importance, and will, perhaps, in time have a considerable effect.

XXIV. LANGUAGE.

The Rotuman language is not an isolated tongue, but a member of a wide-spread family of languages, extending throughout Polynesia. To the ear it sounds, perhaps, considerably different, owing to a peculiarity, in the fact that the Rotumans have a great tendency to transpose the last letter, a vowel, with which all their words should end, to the middle of the word. Mr. Hale in the Wilkes Expedition Report remarks¹: "A general law seems to be that when a word stands by itself, not followed by another on which it depends, it must terminate in a vowel; and this appears to be the original and proper form of most of the words; but when combined, in any way whatsoever, with other words an alteration takes place by which the concluding syllable is transposed or contracted, as that the consonant shall be the final letter." Thus in ordinary conversation the name Rotuma is often turned into Rotuam; *hoga* is always *hoag*; the word *oipeluga*, a club, I have heard pronounced as *oipel'ug* and *oiapelug*. In the text, I have as far as possible kept the words as pronounced, but in the short vocabulary (App. II) I have tried to spell the words in accordance with their original pronunciation. Another remarkable thing is the great facility with which the Rotumans will coin a word for anything new; peculiarities of the animal or thing will be taken, and from these a name made, somewhat in the German fashion. Thus the scorpion is known at one end of the island as the *mamasse*, the animal which eats at the tail, and at the other end as the *monpuoga*, the animal which eats the *puoga*, a small worm in the bananas.

For the purposes of comparison, I compared a rough vocabulary, which I first made, of about two hundred and fifty words with the words of the same meaning in Fijian and Samoan. Of these I found that twenty-nine words were related to both Fijian and Samoan, and evidently were derived from the same roots, ten to Fijian alone and thirty-three to Samoan only. The Samoan I obtained from the Rev. George Pratt's dictionary, but the Fijian by natives, who, knowing several dialects, especially searched for words related to the Rotuman. With the Gilbert islands there were supposed in Fiji to be considerable resemblances; I could make no general comparison, but the few words, which were the same, were all of general distribution through the whole Pacific, or else comparatively recently introduced, names of weapons, instruments, etc. Compared with Malay, by means of Dr. Bikker's vocabulary, there is scarcely a trace of resemblance to be found.

¹ *Loc. cit.*, pp. 469 et seq.

It must be noted, though, that formerly in Rotuma there was a language spoken, considerably different from the present one; in it are most of their songs, and a few phrases from it are still used, but their meaning has been lost. In addition, there was a peculiar language, or rather set of phrases, used to and in speaking of the *sou* and other chiefs. These have been lost owing to the coming of the missions and the abolition of the *sou*. It was suggested by several of the old men that the change of language was due to the coming of the Niuafoou people to the island. In the vocabulary the words, given in the Wilkes Report, are inserted for comparison in brackets where different; they may possibly throw some light on this old language, as many are quite different from the terms I found in use.

While Samoan has fourteen letters in its alphabet—*a, e, f, g, i, l, m, n, o, p, s, t, u, v*—it is necessary to give the Rotuman four more, *k* and *r* being found as well as *t* and *l*, and the *h* being often sounded very distinctly, while in such a word as *sosoghi*, sister or brother, it is scarcely aspirated at all, and such a word as *haharagi*, young, in the method adopted by the Rev. George Pratt for Samoan, would certainly be spelt '*a'aragi*. In set speeches all words commencing with an *h* have it very distinctly aspirated. The letter *j* must also be added to indicate a sound resembling *ch*, *ts*, and the English *j* about equally. It occurs in the names of many places on the island, but is otherwise very uncommon; examples are Juju, Atja, etc., also *nju*, the mouth. Vowels are pronounced as in the continental method. I know of no meaning dependent on the quantity, but it is a mark of respect, when speaking to a chief, to lengthen all or the chief vowels of each of the substantives, thus laying great stress on them. *G* is always nasal, and pronounced *ng*. All the other letters are pronounced as in English.

The same vowel is not generally repeated in a word without a break between, unless the word is a compounded one, as *solgaasta*, the north wind; *saaraara*, a centipede; *hunclee*, the beach. In these cases each vowel is distinctly pronounced. The diphthongs are *ai*, as in *tekaikai*, a shell; *au*, as in *rau*, tobacco; *oi*, as in *hoina*, a wife; *ou*, as in *filou*, the head. Other vowels occurring together are pronounced each separately; thus *haephaep*, the hand, is *ha-ep-ha-ep*, *apioitu*, a priest, *a-pi-oi-i-tu*. I am not really certain that any of the diphthongs are properly so, as in speaking slowly many are broken up into their component vowels. For emphasis almost any word may be repeated, but the repetition often changes the meaning; thus the terms *manu* and *huf* are applied broadly to many

small flying animals, but *manumanu* is a bird, and *hufhuf* a bat.

The accent properly, in the Polynesian group of languages, is placed on the penultimate syllable, and this rule holds for Rotuma, except that when a chief is being spoken to it is often thrown on the first syllable. The transposal of the last vowel, too, often throws it on the last syllable. It is in no case thrown on the vowel, thus transposed.

In Rotuman there is no article definite or indefinite. The Wilkes Report gives *ta*, one, definite and indefinite, used for that, as opposed to *ti*, this, both being used as postfixes.

The names of natural objects, such as trees and animals, are mostly simple and indigenous to the island, or to Polynesia; to these must be added such simple manufactured articles, as the people may be supposed to have known, before they migrated to Rotuma. Compounded nouns usually indicate that the article, animal, or tree has been but recently introduced; exception however must be taken to articles of food or manufactured articles which have been brought by natives of other islands with their own names. The verbs and the nouns, or perhaps adjectives, for similar meanings are the same.

Number does not properly exist. For the plural numerals, or words such as imply a number, are used. *Taucoko* (pronounced *tauthoko*), a Fijian word, is now applied to people, while *atakoa* is applied especially to animals. *Tene*, many, is used generally for inanimate objects, such as stones, trees, etc. The Wilkes Expedition Report gives also *maoi*, many.

Gender is formed by the affix of *fa*, man or male, and *honi*, woman or female, usually shortened to *hon* or *hen*. In most cases among the larger animals, the male and female have separate names.

Case is indicated by prepositions. The genitive may be indicated by one of the possessive pronouns. *K*, or *ka*, is used as a prefix, and applies especially to movements, such as entering and leaving a house; it is particularly employed where an adjective is used. *Se* implies the act of moving forward to a place, and *e* the act of movement from a place.

The adjectives as a rule follow the noun. The numerals do not go above *kiu*, 10,000; they are almost for the smaller numbers identical with those of Samoa and Fiji. The pronouns are given fully in the appendix; compared to the rest of the language, their formation is very complete.

The tenses of the verbs are formed much in the same way as in many other Polynesian dialects. Past tenses are very generally formed by the addition of an adjective, used as an adverb, thus:—

<i>Lao</i>	....	....	....	....	To go.
<i>Gou lao</i>	....	....	....	....	I go.
<i>Gou la lao</i>	....	....	....	....	I will go.
<i>Gou lao vahia</i>	....	....	....	....	I went.

The passive voice is usually formed by changing to the active. The Wilkes Expedition Report says, "The directive particles *mai* and *atu* are found in Rotuman under the forms *m'* and *ato* (or *at'*), suffixed to the verb. Thus *lao* or *la*, which signifies to go or move, becomes *laato*, to go away, *leum*, to come."

The affirmative adverbs are *o*, *ou*, and *e*, and negative *igikei*. *Igikei* is also used for not, but *kat* is a more polite term. "The negatives are *kat* (or *kal*) and *ra*, the first of which usually precedes the verb, and the second follows."¹

XXV. LEGENDS.

I have considered it best to give these legends as near as possible in the same words as they were related to me; by changing the words much of the force, with which they were related, would be lost. At the end of each I have added such notes, as seemed to me to be necessary.

(a) *Legend of Rahou* (1).—Under Gofu, the king of Samoa, there was once a great chief, called Rahou, who only had one daughter. She married and bore a female child, called Maheva. Gofu about the same time likewise had a daughter, and, as Rahou was Gofu's head chief, the two children were brought up together. They were constant companions, and used to be always on the beach playing, their favourite amusement being fishing for *penru* (2). One day each caught one, but Maheva's was the finest. On the king's daughter demanding it, she refuses to give it up, and in return is taunted about one of her feet, which is deformed. Maheva begins to cry, and runs to Rahou, who inquires what is the matter. She tells him, and he is wild with anger. On the next day two girls come called Hauliparua, and Rahou tells them about the whole affair. In return they order him to make a basket that night, and promise to tell him on the following morning, what he is to do. He is told to fill it with sand, and then to embark in his canoe. He does so, calls together all his *hoag*, and all get on board, carefully carrying the basket of sand. Two *arumea* (3) appear next in front of the canoe. "You will battle away on the sea as long as the *arumea* go over your head. As soon as they have gone far enough, they will sing to you, and you will drop the basket overboard." They then travel on for many days, with the birds

¹ Wilkes Expedition Report.

in front. But at last the *arumea* sing, and Rahou throws the basket over the side. Rotuma then comes up with the canoe on top of it. Malaha first appeared, and then the rest, all covered with bushes and cocoanut trees.

One day Rahou thinks he will take a walk round the island, and place a taboo on the different cocoanut trees he may find; he does so, using green cocoanut leaves. On the same morning comes a man, Tokaniua, whom Honitemous (4) gets hold of; she tells him to follow Rahou and place a dry cocoanut leaf under each of Rahou's green leaves as a taboo. He follows Rahou accordingly right round the island, and back to Malaha, where Rahou has his abode. They meet, and Rahou asks Tokaniua where he comes from. He replies that he is on his own land, and appeals to his taboos on the cocoanut trees. They are going to fight, when Honitemous calls Tokaniua, and advises him what to do. Tokaniua then proposes that they shall set each other different tasks, the one failing to do the other's to leave the island. Rahou runs and gets a leaf of the *apaea* (5), which he dips in the water and then on the sand, telling Tokaniua to count the grains sticking to it. This he does correctly, and tells Rahou in return to count the waves breaking in on the shore. Rahou counts and counts, but at last gets wild with anger, and calls his people together; they go to Ulihifou (6), where Rahou pulls up the tree Fimotu, which he carries with him to Mafiri. Here he drives in the tree, and begins to tear the island to pieces, the earth he throws out forming Hatana and Hoflewa. Honitemous, seeing this, runs up, and, kissing his feet, begs him to spare the island. He pulls up the stick, and slings it away, making another small hole, Hifourua, where it alights. (7) Rahou then takes all his people, and retires to Hatana; on his way he turns three of the men into stone—Moiokiura, Papanouroa, and Likliktoa—as they had succumbed to the inducements of the Honitemous.

In Hatana Rahou lives quietly for some time, making two kings there. Once, visiting Rotuma, he makes Souiftuga the king. While Rahou is still living in Hatana, a boar pig comes down to Malaha. The people there kill it, and eat the whole except the head, which they send to Rahou (8), who, in a rage at this mark of disrespect, slings it away, forming Hof Haveanlolo.

Next Souiftuga dies, and word is sent to Rahou, asking him where he is to be buried. He calls the sisters Hauliparua to his aid again, and they summon the *arumea*, and direct them to show the people the place.

The two birds go up over hill after hill, but still go on over the highest, finally stopping at Seselo (9), since when all the *sou* have been buried there.

Rahou finally lived to an old age in Hatana, where he put two stones, Famof and Timanuka, into which he turned two chiefs. To Rotuma he gave its constitution and laws, finally dying and being buried in Hatana, where his grave, club, and *kava tanoa* are still to be seen (10).

- (1) This legend is known to nearly every one on the island. I have received it on five different occasions and endeavoured to strike a mean of the different accounts. There are many other legends attached to Rahou; one makes Gofu come over from Samoa and bring him back there, relating his great achievements after his return.
- (2) A favourite amusement with the children. The animal (*Remipes* sp. ?) lives in the sand between tide-marks, and resembles in appearance a large white wood-louse, with rather long legs. It is caught by tying the abdomen of a hermit crab to a bit of cocoanut fibre at the end of a stick. This is then allowed to wash in and out with the waves on the sandy beach. The animal, attracted by the smell, seizes it, and is quickly thrown over the shoulder on to the land above.
- (3) A small bird about the size of a wren, black with red breast, a species of *Myzomela*.
- (4) See the legend of Tokaniua. In narrating these legends no connection between them is ever indicated. Honitemous is, I think, a general name for all female wood and mountain spirits. This one is said to have come to the island, hidden in Rahou's canoe. The taboo is usually placed on cocoanut trees by tying round their base one or two half cocoanut leaves, which are supposed to represent the arms of the owner clasping the tree.
- (5) A kind of arum with exceedingly large leaves, growing in the bush.
- (6) A place, called Ulhifou, is still known in Malaha. Mafiri is a small hill at the west end of the island. On its summit is a hole 80 feet deep, caused by the subsidence of the lava, which at one time must have welled out of the top; near its base is another smaller hole, called the Hifourua.
- (7) Father Trouillet, of the Société de Marie, who has resided on Rotuma for twenty-eight years, states that Rahou was pulling the island down, so that it might not be seen a long distance away by future navigators in these seas; and that he took up his abode on Hatana so that he might watch for any canoes which might

come and attack the island. One native stated that Uea was formed by a handful of sand, which Rahou found in the bottom of his canoe after he had thrown the basket overboard. Hof Haveanlolo is a shoal just awash between Hatana and Uea.

- (8) It is proper to send all strange animals, which may be killed or caught, to the chief. At a feast the chief's portion is the head of the pig. Certain rocks which stick prominently up are said to be the teeth of this boar, which fell out on the way to Hatana.
- (9) A small hill in Noatau at the extreme east end of the island.
- (10) There are three graves on Hatana supposed to be those of Rahou and his two kings. The former grave (Fig. 7) has merely a circle of stones over it, with a hollowed stone in the centre, while the latter have slabs of rock. The first bowl of *kava*, made by any party visiting the island, is always poured out on Rahou's grave. The club is exactly similar to the war club described (pp. 472-3); it is said to have been twice removed, but on both occasions the boat or canoe, in getting out of the passage through the reef, capsized. Great care is also taken that any one who desires to ease himself should do it between tide-marks, and not in the bush.

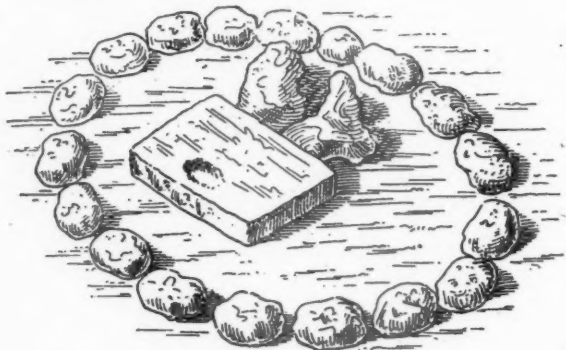


FIG. 7.—RAHOU'S GRAVE.

(The flat stone in the centre shows the depression, into which the *kava* is poured.)

(b) *Legend of Tokaniua* (1).—One day, "when there were no people in Rotuma," two women—Sientafitukrou and Sienjaralol—went to make *mena* (turmeric) at the well Tutuila. After they had rubbed up the *mena*, they mix four cocoanut shells

full with water, and burying them, leave them for the night. On the following day from these four shells is born a female child, called Sientakvou. The women then proceed to fill five more cocoanut shells with *mena*, and from these on the next morning is born a male child, called Tui Savarara. Sientakvou lived in Hotaharua, while Tui Savarara dwelt in Soukoaki. One day these two went to have a talk with one another, and stopped together, with the result that Sientakvou conceived. When they saw this, they were ashamed, since they were brother and sister, and so agreed to go and live in the bush. On their way to the bush Sientakvou told Tui Savarara not to look behind, for that, if he did so, the child would be born on the road. When they reached a spot called Kerekere, Tui Savarara looked round, and the child dropped out. Sientakvou then leaves the child to Tui Savarara, and goes into the bush, where she becomes a wild woman, under the name of Honitemous.

Tui Savarara wants to kill the child, but is afraid of the devil living in Sol Satarua, whom he sees looking at him. Meantime the child, who is called Tokaitoateniua, lay on a big stone, which ever since has had its menstrual periods, blood oozing up just in the same way as with a woman (2). Tui Savarara then lies down on the same stone and takes his *kukaluga* off. He puts the boy under his legs, and as far as possible makes himself appear like a woman. The devil sees, and thinks that he is a woman; he gets on top, and at once Tui Savarara opens his legs, and shows the child, which he says is the spirit's. The devil refuses to have the child, and Tui Savarara goes along towards Oinafa, carrying the child and thinking how he may best get rid of it. He decides to throw it away, and hurls it first from Kerekere to Sol Saka, and then from Sol Saka to Ifala. When Tui Savarara came up the third time, the boy, who was now called Tokaniua, tried to wrestle with him at a place called Hofpopo, but was again thrown, this time landing at Soukoaki, where Tui Savarara lived; in the fourth cast he is hurled to Niuafouu (3).

In Niuafouu the boy grows into a great fighting chief, but, when he gets old, returns to Rotuma to obtain a fighting man to help him. One day he is casting his net standing on a stone, Hofmea (4), when it opens under him and bears a child, called Pilhofu, who is all stone except his one eye and one of his big toes. Tokaniua then departs to Niuafouu with Pilhofu, whose invulnerability he proves with blows of his spear. He strikes him again and again, but at last, unluckily striking him in the eye, destroys it. Pilhofu then returned in disgust to Rotuma, whither he was shortly followed by Tokaniua (5).

- (1) This legend is well known to all. The account given is compounded from an account, given me in English, by Susanna of Oinafa and an account furnished by four old men in conjunction.
- (2) All the places mentioned in this legend lie in Oinafa. A large rough block of lava is pointed out at Kerekere, on the top of a ridge near Satarua, as the one with the periods, which several of the old people claim to have seen.
- (3) This is the most northerly island of the Tongan group, and is about 470 miles from Rotuma.
- (4) A small rock of volcanic stone 4-5 feet long on the reef opposite Savelei, in Itoteu.
- (5) Pilhofu lies a stone in Soukata, in Oinafa; in shape is oval, about 9 feet long by 6 feet wide, and $3\frac{1}{2}$ feet high. It is of lava, and looks like a solid bubble on the top of the lava stream. A medium depression is pointed out as the mouth, while immediately above it another represents the median cyclopean eye; close by is the old *fuag ri* of Tokaniua, a house foundation about 13 feet high.

(c) *Legend of Pilhofu and his son Tokaniua* (1).—Pilhofu had one son, whose name was Tokaniua, and whom he left in Niuafuou when he first returned to Rotuma. After a time, Tokaniua, who had become a great warrior, came over to Rotuma to search for his father, from whom he wanted help; he journeyed in a large double canoe, and landed at Soukama, in front of which lies the canoe to the present day with the curse on it that, if any one break it, a big wave will come and sweep over all the land.

Landing, Tokaniua first meets a girl called Leanfuda, whom he asks if she has seen his father. She refers him to Rosso-ti Tooi (2), who tells him that he must ask Fetutoumal, a man living at Tarasua. He accordingly goes to Tarasua, and, in reply to his inquiries, is told that his father is in Upsese, a stone in front of Teukoi Point, combing his hair; further he is directed that, if he desires to see his father, he must quietly roll this stone back. But, when near Upsese, Tokaniua has to walk across the sand, and making a noise, is heard by Pilhofu, who at once takes to flight. Tokaniua pursues, but Pilhofu dives through a rock, and Tokaniua in following has great difficulty in stretching himself out sufficiently to squeeze through. But Pilhofu has turned himself into a stone, with the exception of one of his big toes, which Tokaniua seizes, and a conversation results.

PILHOFU. "Who is that?"

TOKANIUA. "It is I. Turn round, as I want to talk to you."

P. "Why do you pursue me?"

T. "I have done something you must help me in. We have been playing at throwing spears at bananas in Niuafoou. I have hit nine, and must hit the tenth to win. You must help me."

(At the same time a waterspout (3) comes, and drops both in Niuafoou.)

P. "Take me to where you have got to throw, and bury me there. Your opponents will throw first, but, as I am a stone, their spears will not stick in me or hurt me. When you throw, though, look at my left eye, which I will open, and there your spear will stick."

They throw, and Tokaniua's spear alone sticks. Tokaniua runs up, and seeing a drop of blood oozing out, throws a handful of sand on the eye, while all the people cry out, "*Moriere, moriere*" (4). At the same moment a strong whirlwind (5) came, and blew the sand into every one's eyes. It takes them, too, with some Niuafoou people, and throws them on Houa Island, off Oinafa. Here there is a small hole always filled with rain-water, and Pilhofu tells Fissioitu to go and fill his mouth with the water and blow it into his eye. Fissioitu goes to the pool, but finds that the whole surface has been covered with blood by the sisters Hauliparua. He sucks this off though first, and filling his mouth with water, cures Pilhofu's eye with it.

Tokaniua then went to Teukoi, where on his death he turned into the *atua* of that village, who was called Fretuanak (6).

- (1) This legend was related to me by Wafra, the chief of Juju, at a meeting of the chiefs. Manava, the chief of Itomotu, indicated shortly the last legend with this, relating them of father, son, and grandson. There is a patch of stones on the reef in front of Soukama, in Juju, which are said to be the remains of Tokaniua's canoe.
- (2) This is the title of the minor chief of Tooi.
- (3) The word here used is *ahukia*. Small waterspouts are frequently to be seen off the breaking reef.
- (4) The term "*Moriere*" is much the same as "Well done." It is a term of applause, and is in common use at feasts, if an especially fine pig or a large quantity of food is brought by any one *hoag*.
- (5) The term here is *mumuniha*. It has a very similar meaning to *ahukia*.

- (6) It is interesting to note that, while the first legend of Tokaniua is well known by all at Oinafa, it is nearly unknown in Juju. With the second the cases are reversed. The name Tokaniua still persists in Oinafa, and is always called first for *kava* in the island.

(d) *The formation of the isthmus, or Soktontonu* (1).—Once there walked through the sea to Rotuma from Tonga a great, mighty, and exceeding tall man, called Serimana; with him, floating on the spathe of the cocoanut flower, came his daughter Sulmata (2), a girl of great beauty and spirit. For a long time they remained in Rotuma, and Sulmata married its great warrior Fouma (3), who built a big *fuag ri* on Sol Sororoa, and took her to live there, while Serimana dwelt in Savaia.

After a long time, there came a whole fleet of canoes from Tonga looking for Serimana, with whom they took up their abode in Savaia. One evening the Tongans playing on the sand ran after some *juli* (4), and caught one, at which Serimana was frightened, thinking that they were getting too strong for him; accordingly he sends off for Fouma, who catches several very quickly. Next evening one of the Tongans threw up a canoe over Serimana's house, and caught it the other side as it fell. Fouma does the same, and Serimana is satisfied. On the next evening the Tongans put a big stone fence out from Savaia along by the beach with their left hands, and Fouma is conquered (5). The Tongans then talk of having a big fight with Fouma, and Serimana, who hears of it, urges them to try. Fouma meantime goes and makes an alliance with Onunfanua, another strong man and a left-handed one as well, who dwells in Solelli (6). Onunfanua tells Fouma that, if he will send to him, he will come on the fifth day after the fight has begun, but Fouma says that he will fight alone until the tenth day. Returning, Fouma jumps over the strait, and hastens to Sol Sororoa.

A long time passes, as the Tongans are afraid, but one day, when Fouma is returning from fishing off Halafa, he sees smoke on Sol Sororoa, and his house on fire. He rushes up and finds all waiting for him with clubs and spears. They make a rush at him as he mounts the hill, but he fends them off with his net and gets above them. They take to flight, but Fouma, slinging his net (7) over them, catches fifty, all of whom he smothers in the net. Going into his house, Fouma finds more than half his club burnt, but, in spite of this, rushes down to Maftau and fights the Tongans there for five days.

Meantime Onunfanua has been informed of the battle, and on the fifth day starts. On his way he hears two old men,

Sokanava and Mofmoa, saying that it is a good thing to kill Fouma; he quietly puts his club over their heads, and they, noticing a cloud on the sun, look up. Onunfanua asks them about what they are talking, but they try to put him off; he tells them that he has heard all, but forgives them on their agreeing to fill up the strait during the night, so that he may cross on the following day. They do so in the given time, and, on taking leave, tell him that Fouma is nearly done, and that he will be beaten unless he cuts a *hifo* tree down with one stroke of his left hand. Coming up, Onunfanua fights for some time with the Tongans, but, getting pressed himself, thinks of the counsel he has received. Warding his enemies off with his right hand, with one blow of his left he cuts right through the tree. The splinters kill more than half the Tongans, so that the remainder fly to their canoes, and with all haste set sail.

Fouma, knowing that Serimana really put the Tongans on to him, tells his wife that he will kill her father. She goes down to Serimana and cries aloud, but being afraid of Fouma, will not tell him what is the matter. On the following day Fouma came down, and with one blow of his club cleft Serimana and his house in twain. (8).

- (1) This legend was related to me by Albert and Marafu separately. In the chart of Rotuma a well-defined isthmus is seen, dividing the island into a small western portion and a much larger eastern part. The breadth here is not 100 yards, and the whole is simply formed of beach sand. To the west the basalt of the hill of Kugoi shows undermining from wave action at some past time, showing that this isthmus did not always exist. There are, too, in the reefs on the west and south sides of the island here passages and deep holes, which, I think, indicate a former channel. There is a tradition of the isthmus, being built up about one hundred and twenty years ago by Tue, the chief of Itomotu, with large stone blocks and sand. About sixty years ago, too, it is remembered by some that the isthmus was again filled up by the women and children with baskets of sand. Albert informed me also that, when digging for the foundation of the church, a number of large blocks of lava were found. The derivation of the term Soktontonu is doubtless from *soko*, to join, and *tonu*, water.

- (2) From *sulu*, the spathe of the cocoanut flower, and *mata* wet.

- (3) Any tree, which grows up strong and straight, is called *foumatoru*. The house site of Fouma is still pointed out on Sol Sororora, in Itomotu. Savaia is that part of the shore flat, just east of Maftau.
- (4) *Juli*, or sandpipers, are very common on the beach at low tide.
- (5) There is now a stone wall at Savaia to keep off the inroads of the sea on the beach. It has been repaired three times in the last seventy years, but is now again nearly in ruins.
- (6) A place on Sol Hof, in the Lopta division of Oinafa. It is curious how all strong men come from, and are supposed to live inland.
- (7) The word used is *kiri*, a name applied to a casting net, a large one of which is 12 fathoms long by about 1 broad.
- (8) There are many other legends of Fouma, and a few of Onunfanua, but most of these are mere tales, invented as they go on by the old men when sitting at a *feŋag*, or story-telling, in the evening.

(e) *The origin of the "Moa"* (1).—To Noava was walking one day from Pepji to Matusa, when he was met by Karagfono (2), who was a spirit in the likeness of a man, born of a chief and the spirit of his dead *koiluga* (sweetheart), made of a drop of blood, without bones.

Walking together for some time, they reach Soukama, where To Noava asks his companion to come into his house and have some *kava* (3). The women prepare everything, but only put a table in front of To Noava, seeing which Karagfono got up, and went out, returning after a few minutes with a dry cocoanut, on which he proceeded to sit (4). On perceiving from this that his guest was a chief, To Noava told the women to get a table for him.

After the *kava* and food are finished, Karagfono invites To Noava in his turn to visit him, and takes him right along through Matusa to Luokoasta (5), where To Noava inquires as to their destination.

KARAGFONO. "I am going to take you to Limari."

TO NOAVA. "I am a living man, and how can you take me there alive?"

KARAGFONO. "I have power from the gods to take you. When I jump into the water, you have only to catch hold of the back of my *kukaluga*. Don't leave go till I tell you, or you will be drowned."

Karagfono then dives off with To Noava, and in a short time they reach Limari, where To Noava is much surprised to find dry land, with all sorts of fruits and food. But soon the other spirits smell out that Karagfono has a mortal with him, and inquire why he has brought a living man there. On this Karagfono takes To Noava and hides him on the beams of his house on a *fatafata* (6), but after a day and a half of this To Noava gets tired, and asks to be taken back to the earth. Karagfono agrees, and says, "I should like to make you a present before you go, as you were very kind to me on the earth. I am giving you a *moa fa* and a *moa honi* (7), called Sukivou. When these breed, you can have the young ones, but you must return the old birds to me."

T. "How can I possibly get back to bring them?"

K. "When the day comes to bring them, you will know it without being told, and you will find me waiting at the same place as we dived off."

Talking thus, Karagfono dismisses To Noava, who is carried out of the sea by Sukivou and landed at Luokoasta (8), whence he had dived down with Karagfono. Sukivou had ten chickens, from which all the fowls of Rotuma are descended.

- (1) The fowl. I am indebted to Marafu and Wafu for this legend.
- (2) Also called Sunioitu, but this is a general name for several kinds of *atua*.
- (3) This is the same as asking a person to come in and have a meal. The *kava* is drunk first, and always followed by food.
- (4) Indicates that Karagfono is a chief, and should have a table as well as To Noava.
- (5) A point off Losa, literally *asta*, sun, and *luoko*, to dip.
- (6) A bed of bamboos or sticks in the beams of the house, still common.
- (7) *Fa* and *honi*, male and female, common affixes for gender.
- (8) As they arise from the water, To Noava and Sukivou sing this song:—

"Moasite Karagfono,
Te moturere, ma Fakasifo;
Itivikio, viki vikio, otaro lao.
Sukivou hogo oojao;
Itivikio, viki vikio, otaro lao."

Most of this is in a language now lost, but the following is as far as possible a literal translation:—

"Karagfono knows not where we go,
To the island above, and Fakasifo,
Crowing, crowing, as we pass along,
Sukivou waking up the sleepers,
Crowing, crowing, as we pass along."

Moturere I have derived from *otmotu*, an island, and *rere*, above; it may however be the name of a place. *Ojao* is a word only used as applying to the biggest chiefs.

(f) *The turtle of Sol Onau* (1).—On the top of Sol Onau is a flat platform of rock about 25 fathoms above the sea, and overhanging it somewhat; near it was formerly a large playhouse. One day two girls came out of the house on to this platform, which has since been called *Lepiteala*, to ease themselves.

When one was doing so over the cliff, several canoes came suddenly into sight from round the point, a big *vouroa* (2) fishing. The people in the canoes see, and call out. The girl rises hurriedly in shame, but slips on the rock, and catching hold of the other to save herself, both fall into the sea below.

They are then changed into two turtle, the one white and the other red, and are called *Eao*. They still live in the deep crevices of the coral under the rock, and can be called up at any time by singing the following song (3):—

"*Eao manuse, ka Lepiteala*
Ái, ma vehia ka foro ole tufe,
Havei, ma foiak ia ka fau paufu,
He ta jauaki, ma moiea. Pētē."

There first appears usually in one big crevice the *sasnini*, swimming along, and later come the turtle, usually one at a time. They continue swimming about on the top of the water for a long time, unless any one calls out, "*Fieu* (4) *vouroa*," when they immediately disappear.

(1) Sol Onau, the island off Juju. There is a legend, similar as to details, about two sharks off the island of Makila, in the Solomon group. Captain W. W. Wilson, harbourmaster of Levuka, informs me that there is also a turtle at Batiri, Koro, Fiji, called Tui Nai Kasi Kasi, and that he has twice seen it called up.

I took up Mou, the chief of Pepji, and five girls to sing the incantation. Going on in front, I examined the place, and saw a green turtle. When the girls were singing the incantation the second time, the *sasnini*, a long, narrow, lanceolate fish, which always precedes the turtle in these seas, came slowly along,

but we saw nothing further. All the girls and Mou state that they have repeatedly seen the turtle, which is not unlikely, as the spot is a regular feeding-place for them.

- (2) The name of the *sieu*-fishing, when many are partaking in it (p. 428).
- (3) The meaning, as far as I have been able to get this song interpreted, is as follows:—"Come up, Eao, to Lepiteala, and finish the story for us, having been in the hot sun and tired in the season for the screw-pine, when it is in flower and fruitful. *Pētē*."

The language is very antiquated. Lepiteala is from *ala*, to die; *ka foro*, to tell; *tufe*, people; *fau paufu*, the season of the *paufu*, a species of pandanus.

Each line runs in twelves. The time is similar to the *Tau Toga* (p. 489), but runs in a somewhat higher key.

- (4) *Fieu*, the act of defæcation.

(g) *The coming of the "Kava"* (1).—In Faguta there lived a Tongan, a very strong and brave warrior, called Kaikaiponi. His wife was of a Rotuman chief's family, and had three brothers, Muriak, Afiak, and Koufinua, who lived in Pepji. War was declared against them by Tukmasui (2), the chief of Malaha, but they utterly defeated him, owing to the great valour of Kaikaiponi and his experience in war. As a reward, the brothers desired to make him the *sou*, and, in fact, to re-create the office for him, because from the time of Souiftuga, appointed by Rahou, there had not been any fresh *sou* appointed, this being long before the Niuafou people came to the island. To this, however, there was much opposition, so that they compromised the affair by making his wife the *sou-honi*.

When the *souhoni* was the ruler, *kava* first came to Rotuma floating down from Samoa, from a place called Hihifo. As it passed Noatau, it dropped two stones, the Hofrua, just outside the reef. Round these rocks any crabs (3), prawns, or fish, that may be caught, are poisonous owing to the *kava* which has got into them. The root then drifted on past Oinafa to Fatu (4), where it touched the shore and left a tree, the *oinipeji*, which is of very hard wood, and grows nowhere else on the island. It then, finally, came on shore at the extreme west end of Lopta, from which place it proceeded for a walk along the road to Juju. But the *kava*, before reaching there, branched off and went round Sol Atja to a piece of land called Niuful (5), where it found a convenient hole, in which it planted itself and for a long time flourished.

But one day some dirt fell from a rat (6) in the roof of Kaikai-poni's house on him, and he, recognising the smell, tells all the people of the great drink, and a great search is started. At last they found the root, half burnt by Waromago, who was cleaning the land in Niuful. A great feast is held, and the root is cut into pieces and distributed all over the island, so that all may taste. Among others, one piece is sent to Fissoiitu, who is living at the back of Sol Satarua; but he does not understand its use, and throws it away. It takes root, and grows well, and from this piece all the *kava* in the island has sprung.

By the *souhoni* after this, Kaikaiponi had one child, a son, who one day went to play in the bush, and found two girls, Opopu and Rara, who had come down from *Lagi* (7), and were amusing themselves on a swing. Although much annoyed at being seen on the earth, they put the boy, at his request, in the swing, but he fell out and broke his wrist. In pain at the accident, he calls out for some one to fill the cocoanut shells with water for him, and the girls, alarmed at his cries, promise to do so. They depart, but as soon as they are out of his sight proceed to ascend to *Lagi* again. The people, who are hurrying up on account of the cries, see them, but they are too high for them to do them any harm. The people watch them ascending, and see them, after making a hole in the sky, pass through, and at the same time a great shower of rain came down at the spot itself, which is called Vakoi, and not only filled the cocoanut shells, but cured the boy as well.

Shortly after this Kaikaiponi and the *souhoni* departed in a large double canoe for Tonga, and never returned, while Muriak became the *sou*, and when he died his brother Afiak (8).

- (1) This legend was related to me by Wafta, the chief of Juju, at a council meeting in Malaha; he was assisted by Marafu and the chief of Malaha. I afterwards heard that there are several songs sung by the *kava*, but unfortunately too late to get them transcribed. In Fiji the *kava*, or, as it is there called, *yagona*, is said to have come from Tonga, but I could find no legend about it. On the Ra coast of Viti Levu the following story of its discovery in Tonga was told me:—

“A man was planting his yams one day, when he cut down a *kava* bush which was in the way. Presently he observed a rat, which began to gnaw the root, and fell down, apparently dead. He then, after watching it for some time, went to pick it up, but, to his surprise, it got up and began to run away. Accordingly he concluded that the root must be some

good, and so chewed it, and made *kava*. He found it very pleasant, and so it spread."

- (2) Muriak and Tukmasui are names still to be found on Rotuma. Kaiponi, I am informed, is by no means an uncommon name in Tonga.
- (3) There actually are poisonous fish and crabs off these rocks; one crab, the *fumapoitu*, is very dangerous. The fish and crabs, too, of Luokoasta, off Losa, are also dangerous. It is a common idea in Rotuma that the earth round the roots of the *kava* is poisonous.
- (4) A place in the middle of Lopta. A large-leaved tree something like the *hifo* was pointed out to me as the *oinipeji*; I certainly cannot recollect having seen it elsewhere.
- (5) This piece of land is still known by the same name. A deep hole is pointed out, where the *kava* first rooted itself, and from which it was removed.
- (6) The Rotuman rat is *Mus exulans* (Peile).
- (7) The sky, or heaven, the abode of good deities. If the girls could have been caught, their offspring would have been invincible, and would always have food ready at hand without doing any work. Among all Pacific Island people there is a general belief that the sky opens to allow the rain to fall. Certain andesite crystals, found on the top of the lava in Rotuma, are called *momonife*, literally chips off a thunder-cloud.
- (8) I think this legend points to a hereditary *sou*, who was not only the *sou*, but a king temporal as well.

(h) *Rikolagi, or the house to heaven* (1).—When the people were building Rikolagi, a house to reach the sky (2), a man, Souragpol, started from Atmofu with a stone for its foundation from Too, his wife, Henlapehea, nearly falling to pieces (3) at the time. He passes Teukoi point, and comes to Fahafa (4), where he meets a man, who asks him what he is carrying the stone for, and laughs at him so much that he throws it down, and there it lies to the present day. This man then proceeds to call out the people of Teukoi, and, with Souragpol and his people, they go to Noatau to fight, refusing any more to build Rikolagi. They are beaten, and take to flight, with Noatau in pursuit. Souragpol reaches Teukoi, but being hard pressed, takes up a stone to hide under, and himself turns into a stone, telling the people to call his child Fuoga.

One day, when Fuoga was nearly a man, the Teukoi people were carrying food to the *sou* in Noatau, but they left behind them Fuoga, who was asleep. Fuoga however awoke, and

being hungry, makes after them, and catches them up between Pepji and Noatau. He has no food for the *sou*, and so pulls up a tree, off which he tears the branches, putting the stem over his shoulder. He forces the Teukoi people to give him all their food, which he eats; he then compels them to accompany him to Noatau. Here, reaching the *sou's* house, Fuoga brings on a fight, and kills the *sou* and all his strong men. He then proceeds to Rikolagi, where he has a great fight with the strong man (5) of the island, who is putting the ridge on the house; at last he wins, killing his enemy with one blow of his club and destroying the house with a second blow. He then takes the name of Fouma, and makes a Soukama man the *sou*.

- (1) This legend was related to me by Friday and Marafu. They say that the Fouma, referred to in it, has no connection with the Fouma mentioned in the legend of the Suktontonu.
- (2) In Noatau is a mound of earth, 12-13 feet above the general level and 40-50 yards in diameter, which is pointed out as the foundation of Rikolagi. There is a *fuag ri*, house foundation, called Atmofu close to Matusa.
- (3) This phrase is a literal translation of the Rotuman, and implies that the woman may at any moment bear a child.
- (4) Close to Teukoi. The stone lies on the road, and weighs about half a ton.
- (5) A large stone in Noatau, cracked in three places, is pointed out as this man.

APPENDIX I. LIST OF THE LAST SIXTY "SOU."

1. Lapetemasui.	15. Kaurafonua.	32. Tokanua.	49. Vavaoti.
2. Tuitupu.	16. Rimakou.	33. Titafaga.	50. Uata.
3. Laparere.	17. Koufossi.	34. Irava.	51. Patupolivarahina.
4. Muamea on ava ka noho e Sohoa.	18. Taio.	35. Ravaka.	52. Furisifana.
5. Muatoirere.	19. Fonumonu.	36. Tuaojao.	53. Tuiolorava.
6. Ifuri.	20. Varomua.	37. Gaogaofaga.	54. Marafu.
7. Ifituga.	21. Tui.	38. Fatafesi.	55. Pogisemari.
8. Fesartu.	22. Marafu.	39. Fuatanafau.	56. Tiarukea.
9. Niuta.	23. Mirava.	40. Vuana.	57. Sukamasa.
10. Sourotuma.	24. Tokoara.	41. Fatafesi.	58. Moi.
11. Tafaki.	25. Asekana.	42. Tomanava.	59. Manava.
12. Muamea.	26. Moniseu.	43. Solovalu.	60. Matagitai.
13. Tukmasui.	27. Sakumane.	44. Rimakou.	
14. Souhoni Vakai.	28. Tausia.	45. Tirasoko.	
	29. Satapuaki.	46. Otoresvai.	
	30. Puka.	47. Ragafuata.	
	31. Ranaka.	48. Kaurasi.	

This list is copied from one in the possession of the present Commissioner of Rotuma.

APPENDIX II. LANGUAGE.

Having been advised that a specimen of the language would be of considerable interest, I now give a list of upwards of three hundred words. Of numerals and pronouns I am also giving the Fijian and Samoan equivalents, and of such words out of my general list as seem to me to bear any relationship to Fijian, Samoan, or both languages. I am greatly indebted to Mr. Leefe, the Commissioner of Rotuma, an excellent Fijian scholar, for any merit the list may have. The Rotuman was written down by me first from the interpreter; the Fijian being then carefully added, the Fijian list was handed over to Gideon, an ordained Wesleyan minister, a native of Rotuma, and by him translated into Rotuman, under Mr. Leefe's supervision. The Samoan list I compiled later from the Rev. George Pratt's dictionary, and by the aid of two Samoans in Fiji. I divided the list into words bearing a relationship to one another, in all eleven sections; the numbers in front of the words compared with Samoan and Fijian refer to these. The words chosen refer for the most part to objects of everyday use; others were to assist me in my inquiries about different points, as relationship, superstitions, etc.; and still others were merely for the purpose of comparison. When the list was being compiled, it was never intended for publication in such an incomplete form.

Numerals.

English.	Rotuman.	Wilkes Exp. Rpt.	Samoan.	Fijian.
1	ta, esca.. ..	ta, esca	tasi	dua.
2	rua	rua	lua	rua.
3	folu	tholu	tolu	tolu.
4	hake	hake	fa	va.
5	lima	lima	lima	lima.
6	ono	ono	ono	ono.
7	hifu	hithu	fitu	vitu.
8	valu	valu	valu	walu.
9	siva	siva	iva	civa.
10	sagahula	saghul	sefulu	tini, saga- valu.
100	tarau	tarou	selsau	drau.
1,000	efe	heft', kimanmana	afe	udolu.
10,000	kiu	kiut'	inano	oba.
100,000	kuimanamana .. ..	.. ..	manomano	vetelei.
1,000,000	reaurauvarevare .. ..	.. ..	.. ..	petele.

Pronouns.

English.	Rotuman.	Wilkes Exp. Rpt.	Samoan.	Fijian.
I	gou	go, gou	'ou	koiau.
Thou	ae	ai, ei	'oe	koiko.
He	ia	hati?	'o ia	koya.
We two	itara, amira	amia	i tawa	kedaru, keirau.
You two	aura	aua	'oulua	kemudrau, koikodrau.
They two	iria	eria	i taua	koirau.
We	omisi	amis	i tatou	keimami.
You	ausa	au, aus	'outou	kemudou.
They	irisa	eris	i latou	ko ira.
My	ontou	otou	lou, lota	noqu.
Thy	onou	o, ou	lou, lo'oe	nomu.
His	onou	ou	lona, lana	nona.
Our (of two)	otara	otonua	lo and la maua	nodaru.
Your (of two)	onomura	ous, omua	lo and la taua	nomudrau.
Their (of two)	oria	oria	lo and la oulus	nodrau.
Our	onaso	onus?	lo and la matou (tatou)	noda.
Your	onomusu	ous, omus	lo and la outou	nomudou.
Their	onaro	oris	lo and la latou	nodra.

English.	Rotuman.	Wilkes Exp. Rpt.	Samoan.	Fijian.
2 Moon	hula	hula	mauli	vula.
Cloud	aoga	aoag	ao	ou.
Rain	usa .. ..	.. ..	ua	uea.
Wind	lagi .. ..	.. ..	ta'ni	cagi.
Night	pogi .. ..	.. ..	po	bogi.
3 Land	hanua	hanua	fanua	vanua.
Island	otmotu .. ..	.. ..	motu	yanuyan.
Coast	ufaga .. ..	.. ..	matafaga	baravi.
Bay	fagpopotu .. ..	.. ..	faga	toba.
Reef	sau .. ..	.. ..	a'au	cakau.
Wave	peau .. ..	.. ..	piau	bian.
4 Eye	mafa	matho	mata	mata.
Nose	isu	isu	isu	ueu.
Ear	faliga	thaliga	taliga	daliga.
Mouth	nua	nutsu	gutu	gusu.
Tongue	alele	alele	alelo	yame.
Chest	fatfata	fatfata	fatfata	sere.
Mammae	susu	sus	susu	sucuna.
Back	fomafua	thomathua	tua	daku.
Thigh	saga .. ..	.. ..	ogavae	soga.
5 Branch	ra .. ..	.. ..	la	tabana.
Leaf	rau	rau, noho	lau	drau.
Bark	uli	oihapa	pa'u	kuli.
Green	yarava	foo	lau'ava	karakawa.

English.	Rotuman.	Wilkes Exp. Rpt.	Samoan.	Fijian.
6 Fowl ..	moa ..	moa ..	moa ..	toa.
Yam ..	uki ..	..	ufi ..	uvi.
Orange ..	mori ..	..	moli ..	moli.
Cocanut..	niu ..	niu ..	niu ..	niu.
Breadfruit	ulu ..	ulu ..	'ulu ..	uto.
Chestnut..	ifi ..	..	ifi ..	ivi.
Papaw ..	esu ..	..	esi ..	ualeti.
Kava ..	kava ..	..	kava ..	yaqona.
Chew, to ..	mama ..	..	lamulamu	mama.
Kava-bowl	tanoa ..	tanoa ..	tanoa ..	tanoa.
7 Bird ..	manumanu	manmanu	manu ..	manumanu.
Fish ..	ia ..	ia ..	ia ..	ika.
Owl ..	ruru ..	..	lulu ..	lulu.
Butterfly..	pepe ..	..	pepe ..	bebe.
Fly ..	laga ..	..	lelei ..	laga.
Lobster ..	ula ..	..	ula ..	urou.
Mosquito..	ramu ..	ramu ..	namu ..	namu.
Coral ..	laje ..	..	lapa ..	lase.
8 Bailer ..	tata ..	..	tata ..	nimima.
Bail, to ..	anu ..	..	asu ..	nima.
Sail ..	lae ..	..	la ..	laca.
9 Knife ..	sere ..	sere ..	pene ..	sele.
Beam ..	utupoto	..	utupoto	soko.
Needle ..	sui ..	..	sui ..	cula.
Spear ..	jao ..	tsao ..	tao ..	motu.
11 Lock of hair of virginity.	sope ..	..	taupe ..	taube.
Sleep ..	mose ..	mose ..	moe ..	moe.
Well ..	vai ..	..	vai'eli ..	mataniwai.
Path ..	sala ..	..	ala ..	sala.
Dance ..	maka ..	mak ..	sa'a ..	meki.
God ..	atua ..	atua ..	atua ..	kalou.
Spirit ..	outu ..	lao ..	aitu ..	kalou.
Beg, to ..	farate ..	..	fa'atoga	kerekere.
Yes ..	o, u ..	ka ..	ioe, i, 'oe	io.
No ..	igikei ..	inke, indi	e leai ..	segai.

Relationship. (1.)

English.	Rotuman.	English.	Rotuman.
Man.. ..	famori (fa).	Sister to a man ..	seghoni.
Woman ..	honi.	Sister to a woman..	sosoghi.
Baby, female	le riri.	Husband ..	vavane.
Baby, male..	le meamea.	Wife ..	hoina.
Child ..	le.	Marry, to ..	inose.
Boy ..	fa haharagi.	Son.. ..	le fa.
Girl ..	honi haharagi.	Grandparent on	makiga.
Father or uncle	oifa.	father's side.	
Mother or aunt	oihoni.	Grandparent on	temamafua.
Brother to a man ..	sosoghi.	mother's side.	
Brother to a woman	segvevene.	Cousin, distant ..	poisasiga.

Meteorological. (2.)

English.	Rotuman.	English.	Rotuman.
Sun	asta.	Wind	toga.
Star	hefu.	Wind, N. ..	solgaasta.
Storm	lagi maha.	Wind, S. ..	suruta.
Hurricane ..	lagi hoi.	Wind, E. ..	palgaasta.
Hot	sunu.	Wind, W. ..	maurea.
Cold	matiti.	Lightning ..	uere (oga).
Air	otfiti.	Thunder ..	fui.
Rainbow ..	asisikae.	Sunrise ..	asta-pala.
Light	tafa.	Sunset ..	asta-solo.
Sky	lagi.	Waterspout ..	ahuhia.
Day	terani (asa).	Whirlwind ..	mumuniha.

Sea and Land. (3.)

English.	Rotuman.	English.	Rotuman.
Earth (soil) ..	pera (thanthan).	Water	tonu.
Rock	hofu.	Sea-water ..	sasi.
Stone	hofu meamea.	Fresh water ..	mami.
Mountain ..	solo (thuagsolo).	Tide	volu.
Beach	huneele.	Ebb, to	fenu.
Cape	isu.	Flow, to ..	usae.
Reef (a shoal) ..	mafu.	Swamp	rana.
Current	au.	Land	faufana.
Passage (in reef)	sava.	Swim, to ..	rapi.
Sea	lui.	Dive, to ..	iopu.

The Human Body. (4.)

English.	Rotuman.	English.	Rotuman.
Head	flou.	Leg	la.
Hair	leva.	Foot	aftea.
Forehead ..	motara.	Shoulder ..	uma (nam).
Tooth	ala.	Wrist	kokonisiu.
Neck	kia.	Finger	kapae.
Hand	haephaep.	Nail	menu.
Arm	siu.	Thumb	kahae mafua.
Abdomen ..	efe.	Knee	fu.

Botanical. (5.)

English.	Rotuman.	English.	Rotuman.
Forest	togvao.	Grass	moasu (pa).
Tree	oi.	Dry	mamasa.
Root	vaa.	Screw-pine ..	hata.
Stem	huni.	Ironwood (<i>Casuarina</i>)	toa.
Flower	hasa ne oi (hue).	Bamboo	vau.
Seed	hula (leum).		

Food. (6.)

English.	Rotuman.	English.	Rotuman.
Pig	puaka.	Garden	veko.
Food	tela.	Banana	pari.
Hen	ufa.	Plantain ..	faksara.
Turtle	hoi.	Tarrow	aana (a'aro).
Eat, to	ate.	Sago palm ..	oat.
Hungry	paate (masmas).	Sugar-cane ..	fou.
Drink, to ..	imo.	Kava-cup ..	ipu.
Thirsty	paimo.	Kava-strainer ..	nihou.
Dish	umefi.	Cocoonut scraper	foa.
Arrowroot ..	mara.	Breakfast ..	amahao.
Egg	kalafi (kalodi).	Dinner	omoe.
Kitchen	kohea.	Feast	katoaga.
Fire	rahi.	Tobacco	rau.
Fire friction ..	sia.	Pudding	feki.
Oven	nujukoua.		

Zoological. (7.)

English.	Rotuman.	English.	Rotuman.
Shell	tetaikai.	Rat	pija.
Bat	hufhuf.	Snake	alete.
Pigeon	ifa.	Shark	tanifa (ioro).
Worm	keremutu.	Crab, sea ..	kaka.
Scorpion	mamasse, monpuoga.	Crab, land ..	fupa.
Spider	matavoao.	Crab, cocoonut ..	aruru.
Centipede ..	sasara.		

The Canoe. (8.)

English.	Rotuman.	English.	Rotuman.
Canoe, double ..	ahoie, te bau rua.	Paddle	hosi.
Canoe, single, big ..	tafaga (vaka).	Mast	pou.
Canoe, single, small ..	tavane.	Outrigger ..	sama.
Boat	taurani.	Steering paddle	usuli.

Implements. (9.)

English.	Rotuman.	English.	Rotuman.
Axe	ia.	Woman's dress..	uha.
Club	oipeluga (aihi).	Whale's tooth ..	lei ala ne tolo.
Lamp	pulolo.	Eyeshade	isou.
Digging stick ..	isoa.	Broom	touferi.
Basket	aga.	Torch	sulu.
Mat	epa (apei).	Arrow	hofakbol.
Sinnet	unu.	Hat	foperu.
Cord	alolo.	Net	vou.
Pillow	kuruga.	Pearl shell	tiaf hapa.
Oil (for body) ..	takai lolo.	Necklace	tifui.
Fish-hook	avai.	Sword	oifopilte.
Fan	siva.	Drum	oie.
Man's dress ..	taktakoi.	Fighting stick ..	oku.

Salutations. (10.)

English.	Rotuman.	English.	Rotuman.
On leaving	fuu.	Good-day	noaia.
Having left	lao.	Good-night	mose.
Good-morning ..	manafa.		

Miscellaneous. (11.)

English.	Rotuman.	English.	Rotuman.
Heaven	limari (oroit').	Priest	apioiitu.
Chieftain	gagaja.	Play, to	manea.
House	ri.	War	pelu.
Village	hanua noho (estu).	Taboo	fonou, ha.
Tribe	hoga, hoaga.	Good	lailai.
Sing, to	maka.	Bad	raksa.
Grave	tamura.	Love, to	hanisi (varvar).
Bury, to	famua.	Serve, to	ason.
Go, to	lao.	Foreign	furou.
Circumcision ..	kali.	White	fiso.

JANUARY 11TH, 1898.

E. W. BRABROOK, Esq., C.B., F.S.A., *President, in the Chair.*

The Minutes of the last Meeting were read and signed.

Mr. DALTON read Mr. E. B. LANDIS' paper on "The Capping Ceremony of Korea."

The PRESIDENT pointed out the importance attaching to the custom, and was supported by Mr. GOWLAND, who having lived in the country, was able to confirm the account. Discussion was carried on by Mr. MARKOFF, Professor TYLOR, Mr. A. L. LEWIS, Mr. RUPERT JONES and Mr. CROOKE, after which a cordial vote of thanks to the author was passed.

The PRESIDENT announced the election of Professor G. M. DAWSON, of Toronto; Professor SERGI, of Rome; and Signor TRONCOSO, of Mexico.

Mr. LEWIS then read Mr. R. H. MATHEWS' paper on "The Rock Paintings and Carvings of the Australian Aborigines. Part II," and the PRESIDENT, in moving a vote of thanks, pointed out the great accuracy that distinguished Mr. MATHEWS' work.

Mr. A. J. EVANS spoke of similar caves having been found in Northern Italy.

The CAPPING CEREMONY of KOREA. By E. B. LANDIS, M.D.
Third Division, First Class, Order of the Double Dragon.

ALMOST all nations, from the earliest times until now, have had certain rites which were performed at that period of life known as puberty.

The ritualists of Korea lay down the rule that males should be betrothed at from fifteen to twenty years of age. Now, in Korea it will be remembered that the Capping Ceremony and betrothal are synonymous terms, and the one necessarily presupposes the other as amongst the semitic nations of earlier times circumcision implied marriage. Sa Ma, Duke of On, taught that in ancient times males were betrothed at the age of twenty years, and this ceremony implied that the full responsibilities of manhood were now assumed. Later genera-

tions, departing from these ancient customs, were betrothed earlier in life, until now the Capping Ceremony is sometimes performed at the age of ten. This, however, is quite contrary to the teaching of the rigid ceremonialists who hold that a boy is not fit to assume the responsibilities of manhood until he is acquainted with Ritual and Ceremonial Law.

Three days before the ceremony takes place the head of the clan must make an announcement of the approaching ceremony to the spirit tablets in the ancestral temple. In ancient times a day for making this announcement was always chosen by divination, but at present this rule is not followed unless the Capping Ceremony takes place during the first month of the year. This announcement is made because a boy when capped is supposed to add a new link to the chain in the line of descent. It will be remembered that any unusual occurrence is always announced to the spirit tablets in the Ancestral Temple.

In ancient times the tutor, who occupies a prominent place in the performance of this ceremony, was chosen by lot. This rule is not now followed, and one of the friends of the family is chosen instead. He must be good and virtuous and well versed in Ceremonial Law.

The apartments in which the ceremony is to be performed are now prepared. By means of curtains and screens a small room is partitioned off, in the north-eastern part of the Ceremonial Hall. The Ceremonial Hall is one of the large rooms of the house in which all the ceremonies of the family and the clan are performed. If there are no steps leading up to this hall, a drawing is made on the ground to represent steps. Mats are spread out and a basin with towels are placed in a small side room to the East. In the North and South small apartments are also partitioned off.

Early on the morrow the people of the house arise early and get ready the articles enumerated below.

1. Three tables.
2. A black cap. This is made of thick paper and the pieces pasted together after being cut out of a single sheet. In the centre of each end, about half a inch above the band, a hole is pierced for the insertion of the pin. The whole cap is covered with a black material or with black paint.
3. A pin. This is used to stick through the cap. It should be made of ivory, bone or some other white material.
4. A hood. This is placed over the black cap. The hood and the plaited dress (5) are always worn together. It may be made from a piece of black silk or satin.
5. The plaited dress. A dress made of fine white grass

cloth, with a plaited skirt reaching to the heels. The skirt consists of twelve pieces neatly sewn together, and is attached to the jacket in such a manner that the bottom forms a perfect circle. This, Korean ritualists say, refers to the *sun's* orbit, and the twelve pieces of cloth which form the skirt represent the twelve months of the year, the four pieces of which the jacket is made representing the four seasons.

6. A great belt which is always worn with the above garment. It is made of white satin, folded and sewn so that the actual width of the belt is 2 inches. It must be sufficiently long, so that after encircling the waist and being tied in two loops in front, the two ends will reach down as low as the hem of the plaited dress. The edges on both sides are bound with black satin.

7. The cord is fastened to the great belt and may be made from material of any one of the five colours.

8. Black silk or cloth shoes with white laces.

9. The *Mo* cap. Of this cap there are two kinds, a large one which resembles the hat now commonly worn, and a smaller one of gauze. The small one resembles the military cap of the Chow dynasty of China with this addition, that along the seams are loops of jade beads.

10. The black shirt resembles a black jacket. It is now often made of an azure material.

11. A leathern belt which is always worn with the black shirt.

12. Embroidered shoes.

13. The cowl is like the hood usually worn by graduates who have been successful in the examinations.

14. The graduate's gown is made of indigo or jade-coloured silk. It should have a collar of blue-black silk.

15. A belt which is worn with the graduate's gown. It is sometimes called the "Tasselated Belt" or the "Bell Belt." It is made of woven silk and encircles the waist twice, and at the place where it is fastened two bells are usually attached. Lower down the two ends are again fastened and a larger bell or tassel attached.

16. Boots.

17. A comb in a case. This is for combing the hair before it is fastened up.

18. A *Yang*. This somewhat resembles the ordinary head-band. It is made from hair obtained from a horse's mane and is used to enclose the hair.

19. Three trays covered with cloth. It is on these that all the above articles of dress are arranged.

20. Dried meats and pickled meats.

21. Horn spoons.

The head of the clan with other members of the family and people concerned will arrange themselves in proper order according to their rank and relationship. Those who take part in the ceremony wear full ceremonial dress, the others their holiday clothes.

The boy to be capped has his hair tied up in two coils, and wears a dress resembling the holiday attire of boys.

A prompter for the boy and an assistant for the tutor having been chosen from among the relatives, they retire to the outer gate and are escorted back to the hall by the head of the clan with many ceremonial prostrations.

The boy is placed in the centre of the room and faces the south. The tutor occupies a position on his right and faces the east. The assistant takes a comb and combs the boy's hair, and uniting the two coils into one makes a top-knot and puts on the head-band (No. 18). The cap is then handed to the tutor, who slowly advances to where the boy is and, facing him, he hands the cap to the assistant. He then solemnly blesses the boy for the first time thus:

"In this fortunate moon and on this lucky day an addition is made to your dress. You must now discard all childish thoughts and obey, so that you may attain perfect virtue. May you live long and attain much happiness by the aid of this blessing."

The tutor then kneels while the assistant fastens the pin in the cap. The assistant then advances and kneeling hands the cap to the tutor, who receives it and places it on the boy's head whilst the assistant ties on the belt.

The capped boy now attires himself in the plaited skirt, the large belt with tassels and the laced shoes. He stands erect for a short time and with a dignified countenance faces the south.

The second blessing now follows, after which the boy is attired in the black shirt, the leathern belt and the embroidered shoes.

The second blessing:

"In this fortunate moon and at this good time you are attired in other garments. You must be careful of your demeanour that it be grave, and of your heart that it be pure and sincere. May you live long and receive many blessings from the gods."

The Secretary now advances with the cap, and the tutor kneeling places it on the boy's head as before. The capped boy rises, takes off his plaited dress and puts on his black shirt and leathern belt.

The third blessing now follows, after which the cowl, the graduate's gown, and the boots are worn. This ceremony is similar to the previous one.

The third blessing:

"During this good year and in this lucky moon, you have added to your attire, in the presence of all your brothers, all that which is worn by adults. May your virtues reach perfection, and may you attain that golden (lit. yellow) age which has no limit, and receive many blessings from Heaven."

The tutor kneeling places the cowl on the boy's head. The capped boy then takes off the black shirt and putting on the graduate's gown, leathern belt and boots, and retires.

Libations are now poured in the next room. The capped boy facing the north invokes the gods as follows:

"Good wine, pure and fragrant, is now offered to you with prostrations. Accept these our offerings for your benefit. Grant to us the excellencies of Heaven, not forgetting as well to grant us long life."

Then having received a cup of wine and a tray of dried and pickled meats from the assistant, he pours out libations three times, slightly inclining his head whilst doing so.

In order to obtain the greatest efficacy from these libations, a room should be made (with the aid of screens) in the courtyard, and the libations should be poured on the earth.

The tutor now gives a new name to the capped boy by which he is hereafter known, the name which he bore during his infancy and childhood being discarded.

The tutor gives him a new name, thus:

"You, the eldest (or second or third son as the case may be, (name given) having completed the rites on the attainment of manhood, on this lucky day of this fortunate moon, I give you an excellent name. May you make that name distinguished and virtuous and live long to enjoy it."

The capped boy then answers, "Although I am far from bright intellectually, yet I dare not but receive this name with reverence, and early and late regard it with respect."

The capped boy then prostrates himself.

The tutor now takes his farewell.

The head of the clan, accompanied by the capped boy, now pays a visit to the ancestral temple. The announcement in the ancestral temple is similar to that made when a son is born.

The capped boy now pays his respects to his seniors.

A festival is held on a subsequent day or days at which libations are poured, and all who took part in capping rites have their healths drunk with much ceremony, and receive presents of linen, silk, and paper.

Girls go through a ceremony also, which in many respects resembles the Capping Ceremony, and which is called "The Tying up of the Hair." This is done when a girl reaches the age of fifteen, even though she is not betrothed. If, however, she is not betrothed she only wears it done up on festival occasions, on ordinary days wearing it plaited as usual. After a girl is betrothed she never wears her hair plaited.

The mother takes the place which is taken by the head of the clan in the case of boys.

Three days before the ceremony a governess is chosen from amongst the female relatives of the family. She must be good and honest, and possess a certain knowledge of rites and ceremonies. She must of course be a married woman.

If the girl is betrothed, the mother invites one of the female relatives of the husband to assist in doing up the hair. But if the girl is not promised in marriage a relative of her own household acts.

Preparations are now made as in the Ceremony of Capping, mats being spread in the inner apartments for the sisters and female relations of the girl. Early in the morning of the day set apart for the ceremony, the following clothing is prepared:

1. A jacket, which with the comb and wine cups is placed in the middle of the room as in the Capping Ceremony.
2. A cap and hair-pin. These are placed on a tray at the bottom of the western steps, and are in charge of an attendant.
3. The bride's coronet. This is also called the "Phoenix Cap" or "Glorious Cap." With it is placed a pin.
4. A band or net for enclosing the hair. It is made of black silk 6 feet in length folded, and reaches from the nape of the neck over the head to the forehead, where it is turned and tied around the head. In ancient times both men and women wore this, but now it is only worn by the women, the men having discarded it for the horsehair band.
5. A long mantle which is made of silk or satin and reaches as far as the trousers. The collar is cut round. It is sometimes made so as to cover only half of the shoulders, and is sleeveless. The sleeved jacket reaches as far as the knees.

The mother, governess and girl all face the south; the first two are of course in holiday attire.

The mother goes out to meet the governess and escorts her into the house, but as it is not customary for women in Korea to leave the house she need go no farther than the outer gate. The mother enters by the eastern steps and the governess by the western steps, whereupon all the guests go to their proper places. The mother takes up her position in the east, the

governess in the west, and the attendant to the east of the eastern steps. They all face the south.

Just before the hair is done up the governess retires from the room and dresses the girl in the sleeveless jacket. After she returns to the room, the attendant takes the comb and goes to the left side of the mat followed by the governess, leading the girl. The girl now leaves the mat and kneels facing the west, while the assistant loosens the hair and combs it, after which it is again tied together. The governess and mother then descend the stairs and wash their hands, after which the mother requests the governess to return to her mat. The attendant then brings in the coronet and the pin on a tray, whilst the governess advances to where the girl is kneeling and blesses her in precisely the same words as are used for the first blessing in the case of boys. The governess kneels and places the coronet on the girl's head, fastening it with a pin, after which she rises and returns to her mat. The girl also rises and retires to the next room, where she removes the sleeveless jacket for the sleeved one. She now returns to the room and libations are poured. The attendant pours out wine and takes her position to the left of the girl. The governess bows while the girl goes to the right of the mat and stands facing the south. The governess now takes the wine and advancing to the mat where libations are to be poured, repeats the same invocation as in the case of the Capping Ceremony. The girl now prostrates herself four times and the governess once, after which the girl takes the wine and kneeling pours out libations, drinking the remainder. She then rises and again prostrates herself four times.

A name is now given to the girl. The mother and governess together descend the steps, the mother on the east and the governess on the west. The girl descends by the western steps and going a little to the east of them, stands facing the south. The governess goes through the same ceremony as takes place in boys, after which the girl prostrates herself four times and retires. The mother and girl now go to the ancestral temple and announce the completion of the ceremony to the spirit tablets. The announcement reads thus :

"— (Name) — (No. of daughter, whether eldest, second, third, etc.), has to-day had her hair done up, and we therefore beg to present her in the ancestral temple."

The governess is now formally thanked, her health is drunk, and presents are given to her. This is all similar to the ceremony described above in the case of boys.

The ROCK PAINTINGS and CARVINGS of the AUSTRALIAN ABORIGINES. (PART II.) By R. H. MATHEWS, Licensed Surveyor, N.S.W.

[WITH PLATES XXIX, XXX.]

IN 1895 I contributed a paper under the above title to this Institute,¹ describing the way in which the different styles of paintings and carvings are produced by the native artists, and stating their wide geographic range in Australia, with some remarks on their probable age and meaning.

In the following pages it will not be necessary for me to again refer to these parts of the subject, therefore I will at once proceed to describe a large number of aboriginal drawings which I have myself copied from the rocks on which they were found. All the paintings and carvings included in this article are in New South Wales, and unless otherwise stated, are in the County of Cumberland. The plate containing the paintings will be first dealt with, and then will follow a description of the plate illustrating the carvings. All the paintings are shown in their correct relative positions exactly as they appear on the walls of the several caves described. In the plate of the carvings Figs. 1 to 6, and 7 to 9 represent groups in their proper relative positions, but the remainder of the carvings, numbers 10 to 28, the figures from different rocks, are fitted on the plate in convenient spaces.

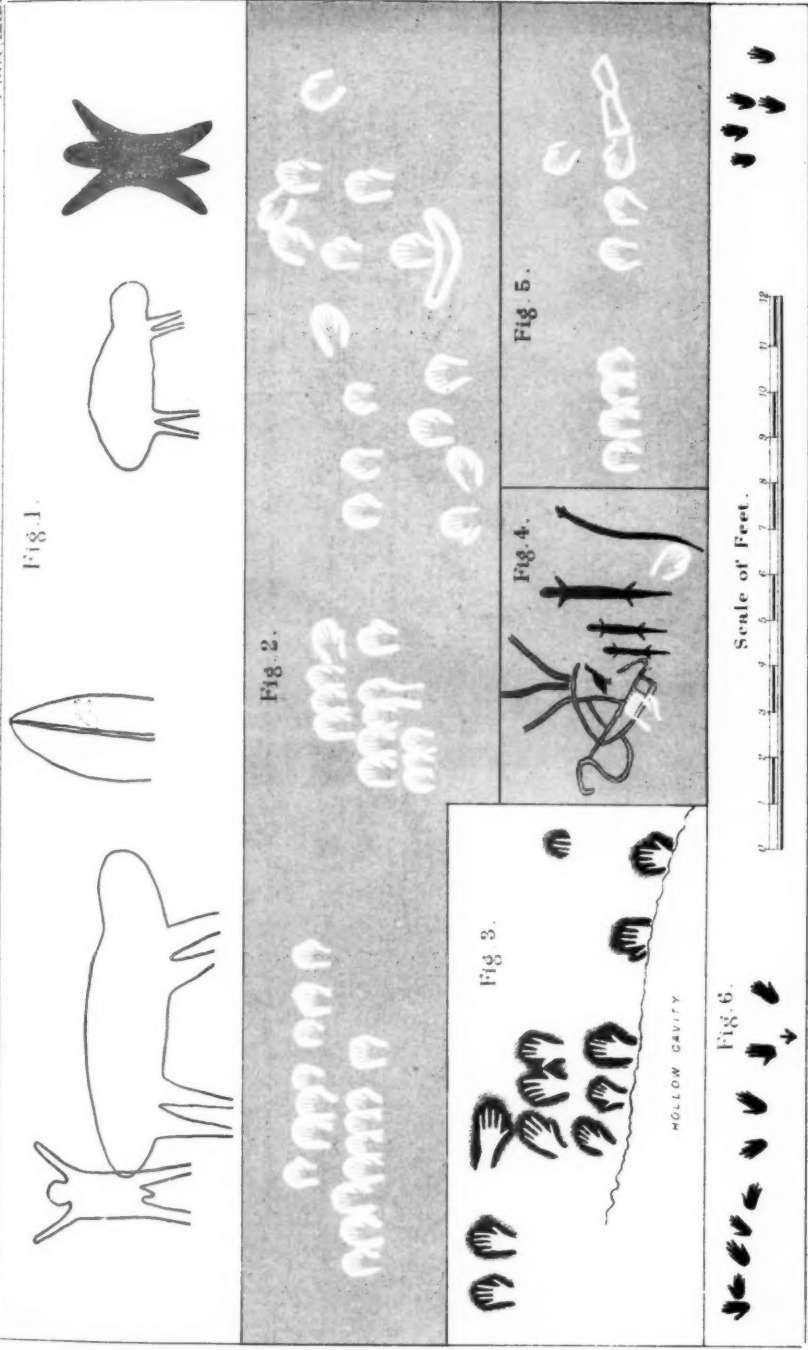
PLATE XXIX.—ROCK PAINTINGS.

Fig. 1. This rock-shelter is in an escarpment of Hawkesbury sandstone skirting the shore of Red Hand, or Quaker's Hat Bay, an inlet of Long Bay, one of the branches of Middle Harbour, Port Jackson, in the Parish of Willoughby, County of Cumberland. It is about 15 feet above high water, and about 30 feet back from the shore, and faces south-west. Its length is 33 feet, its depth on the average about 7 feet 6 inches, and the height varies from 3 feet 5 inches at the entrance to 5 feet 3 inches inside. The floor is sandstone, and there are signs of smoke on the roof and walls, which leads to the conclusion that the place has been resided in by the aborigines.

On entering the shelter, to the left of the spectator, is a human figure scratched on the cave wall, the scratching not being deep, but quite sufficient to remain a long time in a spot

¹ "Journ. Anthropol. Inst.," xxv, 145-163, Plates XIV, XV, XVI.

ABORIGINAL ROCK PAINTINGS.



R. H. Mathews del.



protected from the weather. Next to this figure is the representation of some nondescript animal over 7 feet long, perhaps intended for a wombat, outlined in black. Farther to the right is part of a shield carved on the back wall of the cave; the lower end has been carried away by the natural wasting of the rock, but the middle is still fairly well defined, and the upper end is traceable. This is interesting, being the only case in which I have found carving within a cave. There are remains of a few other groovings on the right of the shield, but they are too far wasted away by the weather for anything to be made of them. There is another but smaller figure of what I have said may be intended for a wombat. The next and last object is one of those grotesque human figures so commonly found in caves all over the country, this one being coloured red.¹

There are about fourteen hands in white stencilling faintly traceable on the wall, extending from the first human figure to the second nondescript animal, but as I have delineated so many hands which are clear and well defined, I have not reproduced these on the plate, with the exception of one of the plainest of them, which is stencilled upon the shield.

This shelter is composed of a softer kind of sandstone than most of them, and the interior is suffering from the wasting influences of damp and rain.

The chief interest of this cave is the carved shield within it, and the two animals of doubtful identity. If they do not represent the wombat or the native bear—the former of which has a very short tail, and the latter none—they may be intended for some mythologic creature of aboriginal lore.

Fig. 2. This rock shelter is situated on the left bank of the Hawkesbury River, at the lower end of Sackville reach, about 5 chains below the punt which crosses the river, and is within Portion No. 3, of 200 acres, in the Parish of Wilberforce, County of Cook. The shelter is hollowed, partly by fluvial action, partly by atmospheric influences, out of a bluff escarpment of Hawkesbury sandstone which approaches close to the river bank at this spot. The cave faces N. 30° E., the height being about 11 feet, the depth running back 18 feet, and the length 26 feet. The floor, for the first 10 feet outwards from the back wall consists of the rock out of which the cave has been worn, and the remainder comprises soil and hearth rubbish. The roof is much blackened and

¹ In 1893, four years ago, I contributed a paper to the Royal Society of New South Wales, in which I described a gigantic painting of a man on the wall of a cave, executed in red and white colours. "*Journ. Roy. Soc. N.S. Wales*," xxvii, 353-358, Plate XIX.

begrimed with the soot of camp fires; and judging from this, and the accumulation of ashes on the floor, this shelter has probably been the haunt of the aborigines for several generations.

The paintings in this cave consist of forty-two hands, and one boomerang, all done in the white-stencil method. The hands are represented in the usual way, with the palms pressed against the surface of the rock; there being thirty-seven left hands, and five right hands. Some of the drawings are very plain, but in general they are rather faint, leading one to the conclusion that they are of considerable age. These paintings have been known to the farmers on the Hawkesbury River for about half a century, and have not altered much in appearance in that time. The back wall of the shelter, on which the hands are delineated, is somewhat circular at the end on the right of the spectator, but I have assumed it to be a flat surface to enable me to show all the figures.

Fig. 3. This cave is situated in a low escarpment of Hawkesbury sandstone skirting a rocky range, and is about $3\frac{1}{2}$ chains from the right bank of Wattle Creek, a tributary of Wilpinjong Creek, about three-quarters of a mile in a north-easterly direction from the north-east corner of Portion No. 31 of 40 acres, Parish of Wilpinjong, County of Phillip.

The cave is 34 feet long, 31 feet deep, and 10 feet high inside. The height on the left side at the entrance is about the same, but at the right side the rock hangs over, making that part of the roof immediately behind it of a domed shape, and causing the entrance at that place to be only about $5\frac{1}{2}$ feet high. It is on this part of the entrance that the paintings appear, being protected from the weather by a large mass of projecting rock a short distance above them. The cave faces south, and is about 50 or 60 feet above the level of Wattle Creek, in which the water is permanent, except in a dry season.

There are nine hands in a perfect state of preservation, all executed in red stencil; two of these hands, a left and a right, have the thumbs touching. Below these are two smaller hands, like those of a woman or a youth. On the extreme right there are the remains of three other hands, also in red stencil, which have been partially obliterated in consequence of the rains beating slightly on that part of the rock during stormy weather, causing the stone to fret away.

Of the twelve hands and parts of hands in this cave, eight are left hands, three right hands, and one is too far wasted away by the weather to be distinguishable. There are no appearances about this cave which would lead one to think it had ever

been used by the aborigines as a place of residence, except for very short periods, if at all.

Fig. 4. This shelter is situated in a high escarpment of Hawkesbury sandstone about $2\frac{1}{2}$ chains from the left bank of Back Gully, and about 8 chains up that gully from where it is crossed by the western boundary of Portion No. 42 of 120 acres, in the Parish of Tollagong, County of Hunter. Water remains in Back Gully during the winter months, and in wet weather, but in Putty Creek, which is only about a mile distant, water is permanent in the driest seasons.

The shelter is 44 feet long, from 5 to 8 feet high, 23 feet deep, and faces S., 50° E. The floor consists of soil and hearth rubbish, and the roof is blackened with smoke, showing that the shelter has been used for residential purposes by the blacks.

The Fig. shows a design in black and red, similar in character to some which I have observed in other caves. There are two left hands executed in the white stencil method—three iguanas or lizards, a bird, and what appears to be intended to represent an eel, all drawn in black.

On another part of the wall I observed eighteen representations of hands, all done in white stencil, but I did not copy them, thinking that this reference to them would be a sufficient guide to future visitors.

There are two other groups of interesting paintings in this cave, one of which I have described in the "Proceedings of the Royal Society of Victoria," vii, N.S., pp. 143-156, Plate VIII, Fig. 6; the other is described in the "Proceedings of the Royal Geographical Society of Australasia, Queensland Branch," x, pp. 46-70, Plate II, Fig. 2.

Fig. 5. This rock shelter is in an escarpment of Hawkesbury sandstone on a spur of a rocky range on the left of the road from Howe's Valley to Putty, about 6 chains from that road, and about 10 chains southerly from the south-eastern corner of Portion No. 217 of 40 acres in the Parish of Wareng, County of Hunter. The shelter faces N., 25° W., and is 31 feet long, and 6 feet high; the depth from the front to the back averaging 14 feet. The floor consists of rock in places, and soil in others, and has been resided in occasionally, judging by the charcoal on the floor and smoke on the roof. There is water in a gully not more than a quarter of a mile distant.

This cave is unusually interesting on account of there being the perfect representations of two human feet, one of which is smaller than the other, both being the left. There are also eight hands, and the remains of a ninth, three of them representing right hands. Most of the figures in this cave are rather

faint, owing to the wasting away of the rock, which is of a somewhat soft and gritty nature. All the figures are executed in white stencil.

Fig. 6. The cave in which these impressed hands are found is situated in the Parish of Wilpinjong, County of Phillip, in a sandstone escarpment about three-quarters of a mile in a southerly direction from Portion No. 4 of 40 acres, in the parish above-named. The length of the shelter is 54 feet, the depth 13 feet, and the height about 9 or 10 feet, and it faces the north-east. The floor consists of sandstone, and there are no indications of the cave having been used for residential purposes.

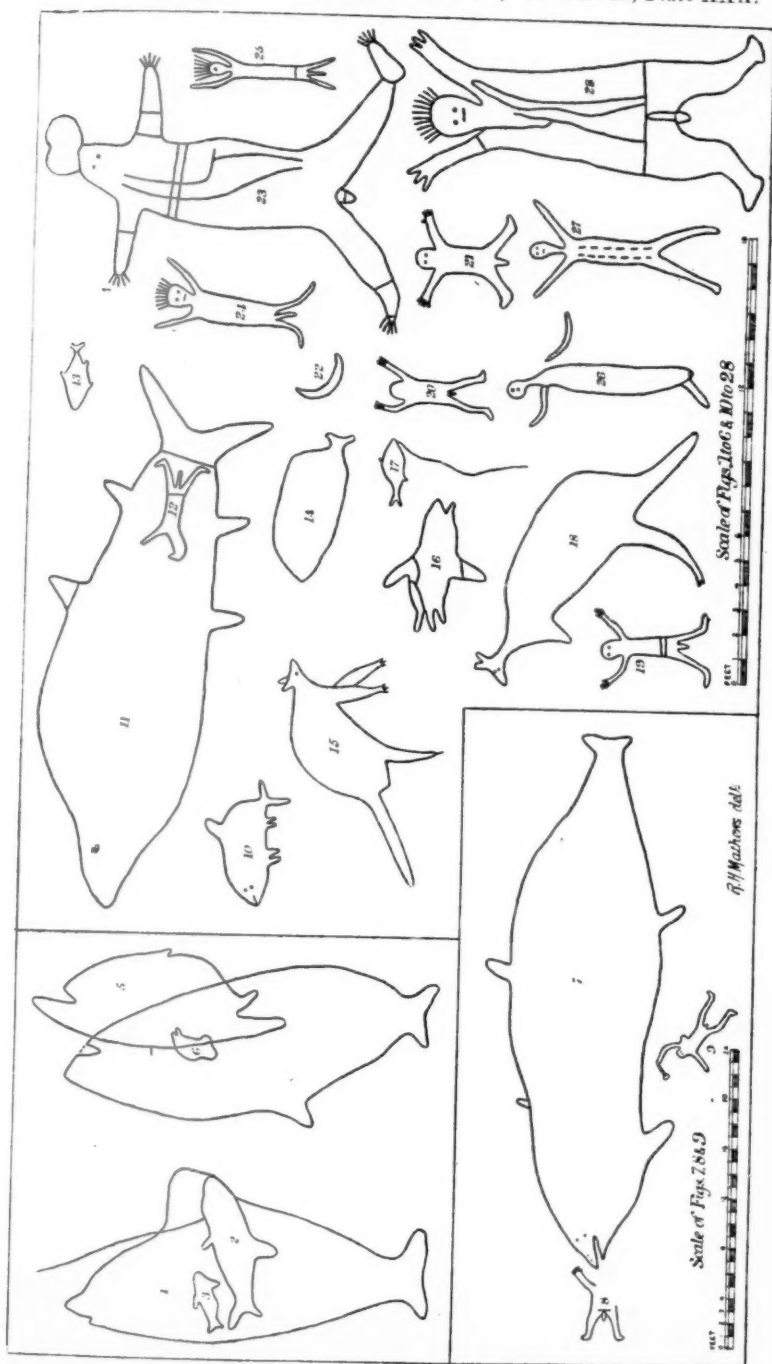
On the left of the spectator as he enters the cave are nine hands, all done in the impression method. Under the eighth hand of this group is what appears to be intended for the track of a bird's foot. Next follows about 18 feet of rough rock altogether unsuitable for painting, and then, on a smooth patch of the sandstone, are five more impressed hands. On the plate, the 18 feet of space separating these two groups of hands, has been utilised for the insertion of the scale of the drawings. The impressions appear to have been made by the hands of women or youths, judging by their small size, and are all in red colour.

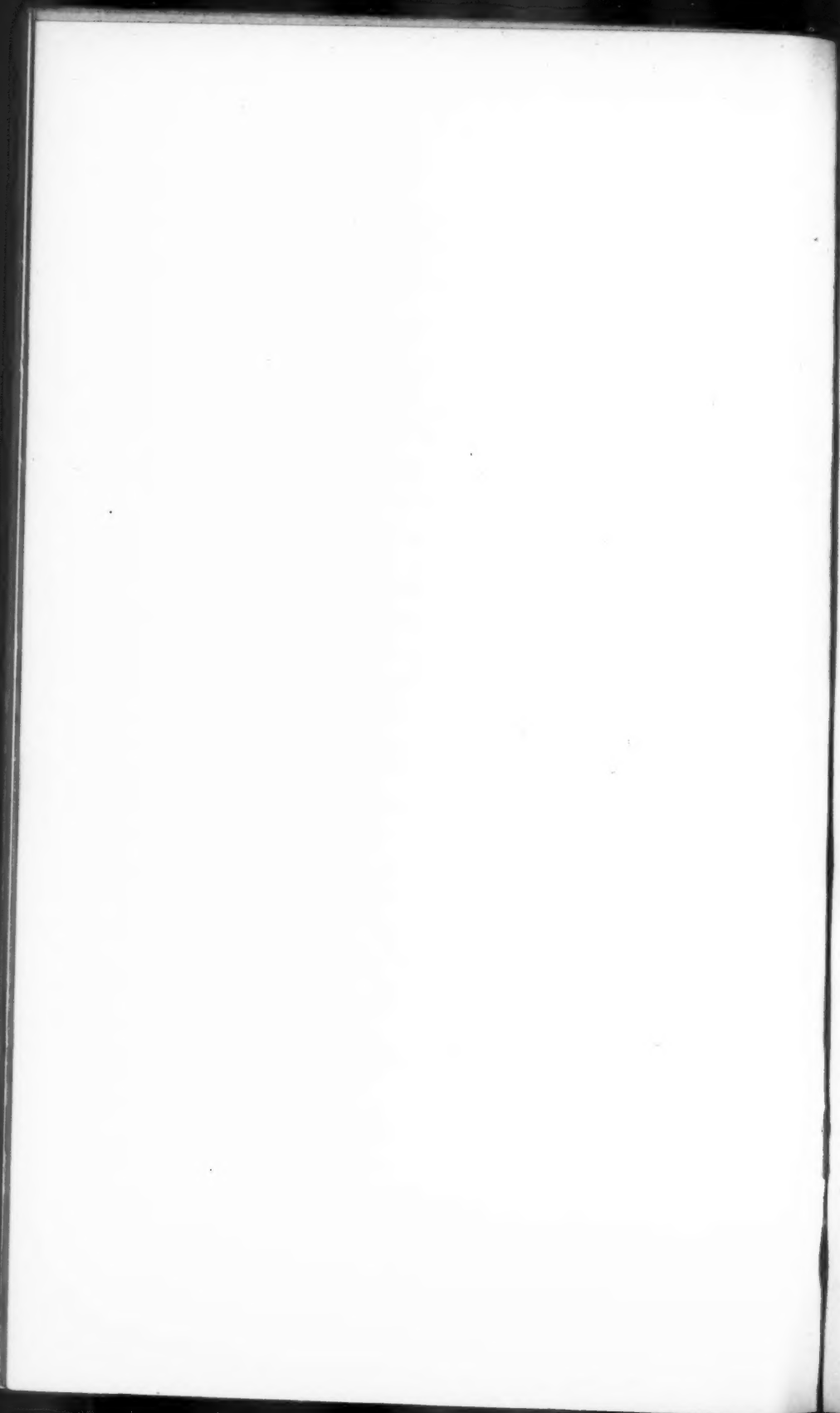
This cave contains another group of twenty-five impressed hands, which are shown as Fig. 6, Plate II, illustrating my paper on "The Aboriginal Rock Pictures of Australia," published in the "Proceedings of the Royal Geographical Society of Australasia, Queensland Branch," vol. x, pp. 46-70.

PLATE XXX.—ROCK CARVINGS.

Figs. 1 to 6 represent an interesting group of six fish carved on a rock of Hawkesbury sandstone on the Battery Reserve at Bumborah Point, Parish of Botany, County of Cumberland. The rock is almost level with the surface of the ground, and slopes in the same direction, which is towards the shore of Botany Bay. All the figures have suffered by the wasting of the rock, and the greater part of their outline is now barely distinguishable.

The large fish, Fig. 1, is 14 feet 10 inches from the snout to the farthest flipper of the tail, which is fairly well shaped. An eye is shown, and the mouth is partly open. Within the outline are two smaller fish, Figs. 2 and 3, the former of which is 6 feet 2 inches long, and the latter 2 feet 6 inches. An incised line, over 7 feet in length, which was probably intended for a spear, is inserted in the fore part of the body of Fig. 2, having passed through the dorsal outline of Fig. 1. Whether the





drawing was intended to convey the meaning that these two fish had been eaten by the larger one, or whether they were carved in this position owing to the suitability of the rock surface, it is difficult to determine.

Fig. 4, the largest fish of this group, is 15 feet 8 inches in length, and is delineated with the mouth open. Fig. 5 is another large fish, whose outline encroaches on that of Fig. 4, and also has its mouth open. The short line rising from its back is suggestive of the commencement of a dorsal fin, which the native artist either left unfinished, or the remainder has weathered away. Lying wholly within the outline of Fig. 4, and partly overlapping that of Fig. 5, is a small fish 2 feet long, very badly drawn.

Figs. 7, 8, and 9. This group of carvings is situated on top of a large rock of Hawkesbury sandstone a few yards from the northern side of the road from Gordon railway station to Pittwatu, and is within Portion No. 83 of 320 acres, in the parish of Narrabeen, County of Cumberland. The large fish, Fig. 7, which is $42\frac{1}{2}$ feet in length, and upwards of 12 feet across the body, has been described by me elsewhere,¹ and is now repeated to complete the group, the remaining figures of which were not then dealt with. The part of a man's outline, Fig. 8, close to the mouth of the fish, was either never completed, or some of the lines have been carried away by the weathering of the rock. Fig. 9 represents a man 5 feet 8 inches tall, having in his left hand a weapon which resembles a tomahawk or waddy. The lump under this man's arm may have been designed for a dilly bag, or perhaps the artist first intended the drawing to represent a woman, and changed his mind as the work progressed.

The theory may be hazarded that this group referred to some well known legend in which the great fish was going to kill the black fellow shown in Fig. 8, and that then the other man, Fig. 9, came to his assistance, and hit the fish with his tomahawk.² On the other hand, the position may be purely accidental, the figures having been executed by different artists, perhaps at different times, on such parts of the surface of the rock as were found suitable for the purpose.

Fig. 10 is carved on the level surface of a sandstone rock on

¹ "Aboriginal Rock Paintings and Carvings in New South Wales," "Proc. Roy. Soc. Victoria," vii (new series), 143-156, Plate IX, Fig. 14.

² I know of another group of carvings, in which a monstrous fish, with its jaws extended, is apparently pursuing a man in front of it. The large fish is shown as Fig. 7, Plate XVI, in the "Journ. Anthropol. Inst.," vol. xxv; and the man it is pursuing, together with two enormous boomerangs which have perhaps been thrown at the fish in endeavouring to rescue the man, are represented in Figs. 7, 32, 33, Plate II, in the "American Anthropologist," vol. viii.

the eastern side of the old road from Peat's Ferry to Sydney, and about a quarter of a mile northerly from Vize Trigonometrical Station, Parish of Cowan. It represents a fish 5 feet 1 inch long, and is remarkable on account of the belly fins being in pairs,—native carvings generally showing only one. The mouth is represented, and both the eyes are drawn on the same side of the head, a practice not unusual in aboriginal pictures of various animals.

Within a few chains of this figure, and on a continuation of the same mass of Hawkesbury sandstone, are a considerable number of other carvings representing men, kangaroos, fish, etc., some of which have been reproduced by me in other publications.¹

Figs. 11 and 12. The large fish represented in Fig. 11 measures nearly 22 feet from the snout to the end of the upper caudal fin, and the eye is tolerably well placed. There are two dorsal and two ventral fins almost opposite each other and an incised line across the tail. Within the outline of the fish, and lying parallel with it, is the rude figure of a man, Fig. 12, with his head in the same direction as that of the fish, which faces towards Berry's Bay. In regard to the upper extremity of the human figure, it is rather puzzling to say whether the artist intended to give him the head of a bird, or that of some of the marsupial tribe. The rest of the drawing, including the belt, is similar to other carvings of men found in different places. The mass of sandstone containing this group is on top of the hill at the head of Berry's Bay, one of the inlets of Port Jackson, in the Parish of Alexandria.²

Fig. 13. This carving, representing a fish 2 feet 8 inches long, is cut on a large sandstone rock sloping north-easterly within Portion No. 1139, of 24½ acres, in the Parish of Manly Cove. On the same rock are upwards of thirty other carvings representing women, men, fish, kangaroos, wombats, native weapons, and several nondescript figures, all of which have been reproduced by me in different publications.³

Fig. 14, representing a fish 6 feet 3 inches in length and 2 feet 6 inches across the widest part of the body, is carved on a mass of Hawkesbury sandstone on the old disused drag road from Portion No. 71, of 100 acres, Parish of Broken Bay,

¹ "Rock Paintings and Carvings of the Aborigines of N.S. Wales," "Report Austr. Assoc. Adv. Sci.," vi, pp. 624-637, Plate XCIX, Figs. 4 and 28.

² A very rough sketch of a fish, somewhat resembling this one, but stated to be "about 12 feet long," is given in the "Proc. Geo. Soc. Austr., N.S. Wales," vol. i, p. 50.

³ "The Aboriginal Rock Pictures of Australia," "Proc. Roy. Geog. Soc. Aust. (Q.)," x, 46-70, Plate III, Figs. 8, 10, 14 and 16. See also my other papers cited in the footnotes to this article.

towards Taber Trigonometrical Station. The rock slopes gently in a north-easterly direction, and the carving is indistinct owing to weathering.

Fig. 15. This well executed representation of a buck kangaroo is carved on a sandstone rock at Point Piper, a low headland on the southern side of Port Jackson, between Rose Bay and Double Bay, in the parish of Alexandria. The extreme length, from the nose to the tip of the tail, is 10 feet 5 inches; both the fore legs are represented, but only three digits are shown on each, instead of five. In 1847, Mr. G. F. Angas,¹ in a book long since out of print, gave an inaccurate drawing of this kangaroo, which he described as being "nearly 9 feet in length." His drawing is nevertheless highly interesting as showing that although the carving has been exposed to the weather, and other wasting influences, for more than fifty years since its first discovery, it is still in an excellent state of preservation.

Fig. 16. This strange looking fish, 5 feet 4 inches long, is delineated on a flat mass of Hawkesbury sandstone almost level with the surface of the ground, and more than an acre in extent, about 5 chains from the eastern side of the old road from Peat's Ferry to Sydney, and about a mile and a quarter northerly from Vize Trigonometrical Station, parish of Cowan. There are two large fins, each of which has a line across it, and the tail is scoloped into three divisions. The mouth is represented open, but the eye has either been forgotten, or has been carried away by the natural decay of the rock. There are about two dozen other carvings on the same rock, most of which have been copied by me, and are shown in the Journals of different Societies.²

Fig. 17. This interesting drawing is evidently intended to represent a fish caught on a line. Collins, in his "Account of the English Colony in New South Wales," vol. i, p. 557, speaks of the natives fishing with hooks made of oyster-shell, and fishing lines made from the bark of a tree. The fish is 2 feet 9 inches long, and the length of the string is nearly 6 feet. It is on the same mass of rock as Fig. 13.

Fig. 18. This large female kangaroo is carved on a continuation of the same mass of rock as Fig. 10, not far from it, on the opposite or western side of the old road to Peat's Ferry, and on top of the range dividing the waters of Berowra and Cowan Creeks. The animal measures 12 feet 10 inches,

¹ "Savage Life in Australia and New Zealand" (London, 1847), vol. ii, p. 275, Plate I, Fig. 11.

² "The Rock Pictures of the Australian Aborigines," "Proc. Roy. Geog. Soc. Aust. (Q.)," xi, 86-105, Plate II, Figs. 10, 11, 12.

from the tip of the nose to the end of the tail, and both eyes are represented on the same side of the head, as in the case of the fish shown in Fig. 10.

Fig. 19. The small figure of a man here represented is carved on a mass of Hawkesbury sandstone, sloping gently towards the south-east, about two acres in extent, and elevated only a few feet above the surrounding land, in the Parish of Spencer, County of Northumberland. The rock is situated on a bridle track leading from Hawkesbury River to Mangrove Creek, on top of the range dividing the streams mentioned. The man's height is 4 feet 5 inches and the width of the body, which is much elongated, is 10 inches. There are two incised lines across the body, representing the belt, which is usually shown by a single line, and the only features delineated are the eyes.

Fig. 20 represents a man, measuring 4 feet 3 inches from the top of his head to the heel of his longest leg, the legs being of unequal length. This rude drawing is on the same rock as Fig. 19. There are about thirty other carvings on this rock, nearly all of which have been shown by me elsewhere.¹

Fig. 21. This drawing of a man about 4 feet 6 inches high if his legs were not so much spread out, is carved on a flat sandstone rock within the north-west corner of portion No. 16, of 60 acres, in the parish of Wilberforce, County of Cook. The eyes are the only features at present visible on the face, and there is a belt round the waist, and bands across each of the arms near the shoulders. All the groovings are very faint, owing to the wasting of the rock, and are scarcely discernible.

Fig. 22. This drawing, which is rather too much bent for a boomerang, may have been intended to represent the new moon. It is carved on a large flat rock about half-a-mile north from Cooper Trigonometrical Station, in the Parish of Frederick. It measures 26 inches in a direct line from end to end, and is 5 inches wide in the middle. Several other interesting figures are carved upon the same mass of rock, and are described in papers contributed by me to other scientific bodies.²

Fig. 23 is a grotesque figure of a man measuring 15 feet from the top of his head-dress to a point on a level with his heels as he now stands; but would be about 2 feet higher if his legs were straight under the body. The belt across the body consists of two lines, as in Fig. 19, two bands on the left arm, and

¹ "The Rock Paintings and Carvings of the Australian Aborigines," *Journ. Anthropol. Inst.*, xxv, 145-163, Plate XVI, Figs. 2, 3 and 6. "Australian Rock Pictures," *American Anthropologist*, viii, 268-278, Plate II, numerous figures. The remainder are shown in other publications.

² "Journ. Anthropol. Inst.", xxv, Plate XVI, Figs. 1, 4, 5, 8. "Proc. Roy. Geog. Soc. Aust. (Q.)," x, Plate III, Figs. 1, 3, 4, 13. "Rept. Aust. Assoc. Adv. Sci.," vi, Plate XCIX, Figs. 19, 20.

one on the right; there is also a band around each ankle,¹ and another across the right foot. Both eyes are shown, and the fingers and toes are represented. The lines extending from the chest to the abdomen were probably intended for ornamentation, but may have been drawn to represent the alimentary system. I have before seen nondescript figures carved within the outline of larger ones in other instances.²

This carving is on a flat rock of Hawkesbury sandstone, almost level with the ground, a few yards from the south-western side of the road leading up the "Wheelbarrow Ridge" from the Colo River, and is about $2\frac{1}{2}$ miles northerly from Portion No. 21, of 100 acres, in the parish of Hawkesbury, County of Hunter. There are a few small carvings on the same rock which are too much defaced by time to be distinguishable.

Figs. 24 to 28, all representing grotesque figures in human form, are carved on a rounded mass of Hawkesbury sandstone, rising some feet above the surface of the ground, on the eastern side of the main road from Dural to Wiseman's Ferry, and are situated about 2 or 3 miles southerly from the crossing of that road over Cooper's Creek, in the Parish of Frederick. The carvings here shown are the most important, but there are a few other small figures, almost obliterated by the decay of the rock, which I have not reproduced.

Fig. 24 represents a man 5 feet 9 inches high, exclusive of his headgear, which measures an additional 6 inches. Fig. 25 is another male figure, 5 feet 2 inches high, without reckoning the head-dress. He wears a belt, and has one eye in the centre of the head. Fig. 26 appears to be the profile of a human being sitting down, with a boomerang 28 inches long near the back. Fig. 27 is another human figure, 7 feet 9 inches high, having three rows of dots extending from the chest to the abdomen. Fig. 28, the last of the group, represents a man of colossal proportions, being 14 feet 4 inches high, and 29 inches across the body at the belt. The eyes and mouth are delineated, as in Figs. 24 and 27, and there are some lines within the body which have probably been added for decorative purposes. These lines extend from the neck the whole length of the body, and some of them are continued down each leg, but as they are very faint, I have shown them only as far as the belt.

The following correction should be made in my former paper on this subject published in this Journal, vol. xxv, p. 158:—

Lines 9 and 10, for "No. 63 of 40 acres," read "No. 3, of $40\frac{1}{2}$ acres."

¹ For bands around the ankles, see the two men in Fig. 3, Plate II, "Proc. Roy. Geog. Soc. Aust. (Q.)," xi.

² Compare with Fig. 7, Plate IX, "Proc. Roy. Soc. Victoria," vii (N.S.). See also Fig. 5, Plate XVI, "Journ. Anthropol. Inst.," xxv.

ANNUAL GENERAL MEETING.

JANUARY 25TH, 1898.

E. W. BRABROOK, Esq., C.B., F.S.A., *President, in the Chair.*

The Minutes of the last Meeting were read and signed.

The CHAIRMAN declared the ballot open, and appointed Mr. Bouverie Pusey, and Mr. W. H. Coffin, Scrutineers.

The Treasurer, Mr. A. L. LEWIS, read the following Report:—

TREASURER'S REPORT FOR 1897.

The income of the Institute for the year 1897 was £549 17s. 4d., being £19 9s. 7d. more than the income for 1896; an increase which has been caused by our receiving two life subscriptions in 1897 as against one in 1896.

The expenditure for the year 1897 was £646 5s. 2d., being £130 14s. 9d. more than in 1896, and £96 7s. 10d. more than the income for 1897.

This excess of expenditure over income and over the expenditure of 1896 has arisen entirely in connection with the *Journal*, the 4 numbers paid for in 1897 having cost £325 1s. 9d., as against £204 8s., the cost of the 4 numbers paid for in 1896, and the cost of stamps and parcels having increased by £11 15s. 2d., chiefly on account of the greater weight of the *Journals* sent out.

I have always considered and still maintain that our *Journal* is the best object upon which we can expend our funds, and I cannot doubt that the Fellows of the Institute will feel that they have had good value for the money spent during the last year, but it is obvious that we cannot this year spend as much as we spent last year without first enlarging our bank balance. It will therefore be for the Fellows, who have received the benefit of last year's extra expenditure, and for the Council about to be elected by them, to decide whether the present rate of publication shall be maintained, and, if so, whether the requisite means shall be provided by further subscriptions and donations, or by the sale of our Metropolitan Consolidated Stock.

The liabilities at the end of 1897 (other than our moral liability to life members) were :—

	£	s.	d.
Rent, &c., for one quarter	33	15	0
<i>Journal</i> , one number	97	1	3
"Anthropological Notes and Queries"	39	19	1
Sundries, say	14	4	8
Total	<u>£185</u>	<u>0</u>	<u>0</u>

The assets at the same date were £600 Metropolitan Consolidated Stock (worth about £720), cash in hand and at the Bankers £75 1s. 10d., some unpaid subscriptions, and the library, furniture, and stock of publications.

A. L. LEWIS,
Treasurer.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.

Receipts and Payments for the Year 1897.

RECEIPTS.			PAYMENTS.		
	£	s. d.		£	s. d.
BALANCES 1st January, 1897:			RENT (including coal and gas), for one year to		
Cash at Bank	162	13 10	Michaelmas, 1897		135 0 0
" Petty	5	2 1	PRINTING JOURNAL, Nos. 97, 98, 99 and 100,		
	167	15 11	including illustrations and Authors' copies	829	11 9
Less balance of "Notes and Queries" account	36	5 4	Less received from Miss Godden towards plates	4	10 0
SUBSCRIPTIONS:			SALARIES AND COLLECTOR'S COMMISSION	325	1 9
For the year 1897	360	3 0	STAMPS AND PARCELS	76	11 8
Two Life Compositions	42	0 0	HOUSE EXPENSES:	42	11 6
Arrears	17	17 0	Cleaning rooms, &c.	16	18 6
In advance	11	9 0	Attendance and Refreshments at Meetings ...	22	15 0
SALE OF PUBLICATIONS:			PRINTING AND STATIONERY	39	13 6
Messrs. Kegan Paul & Co. (July 1, 1896, to June 30, 1897)	82	12 8	LANTERN (use of slides)	18	17 11
Office Sales	10	9 8	INSURANCE	4	3 0
			SUBSCRIPTION TO LIBRARY CONFERENCE	1	10 0
STOCK IMPLEMENTS SOLD	93	2 4	TRAVELLING	1	1 0
DIVIDENDS for one year on Metropolitan Consolidated 3½ per cent. Stock (less Income Tax)	5	0 0	REPAIRS	19	0
				15	10
"ANTHROPOLOGICAL NOTES AND QUERIES":					
Balance as per last account	20	6 0		646	5 2
Sales during 1897 ..	36	5 4	BALANCES, 31st December, 1897:		
	3	13 9	Cash at Bank	71	18 4
			Petty Cash	3	3 6
	39	19 1			
				75	1 10
				£721	7 0

Examined and found correct,
 (Signed) R. B. HOLT, } Auditors.
 H. N. HUTCHINSON, }
 January 21st, 1898.

The Secretary, Mr. O. M. DALTON, read the following Report of the Council :—

REPORT OF THE COUNCIL OF THE ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND FOR THE YEAR 1897.

The Council has to report that during the past year eleven Ordinary Meetings and one special meeting have been held in addition to the Annual Meeting.

In the course of the year the following numbers of the *Journal* have been issued : Nos. 98, 99, 100, and 101, containing 614 pages of letterpress, and illustrated by 44 plates and a large number of woodcuts.

The Library is in full working order, many valuable additions having been made in the course of the year. The Catalogue has been kept up to date.

The classification of negatives and photographs, and the formation of a loan collection of Anthropological lantern slides for the use of Fellows was proceeded with.

In the following table the present state of the Institute, with respect to the number of its members, is compared with its condition at the corresponding period of last year :—

	Honorary.	Corresponding.	Compounders.	Ordinary.	Total.
January 1st, 1897	47	26	84	206	363
Since elected ..	3	1	2	7	..
Deceased or re-tired	2	..	4	6	..
January 1st, 1898	48	27	82	207	364

The following are the names of the Fellows whose deaths have been reported during the year :—

Prof. Leuckart, of Leipzig, Honorary Member.

Prof. Steenstrup, of Copenhagen, Corresponding Member; and,

Rev. Wm. Arthur.

Mr. J. S. Coleman.

Mr. S. Harraden.

Mr. S. Laing.

Mr. J. Theodore Bent.

Sir A. W. Franks, K.C.B.

Mr. J. Heywood.

Mr. A. Morrison.

The Reports were adopted on the motion of the PRESIDENT, seconded by Sir H. Low.

ANNIVERSARY ADDRESS.

By E. W. BRABROOK, *President.*

I HAVE now the honour, for the third and last time, of delivering the customary annual address from the chair. I acknowledge with gratitude the compliment you have paid me in prolonging my tenure of office beyond the usual limit, and the many other marks of kindness and sympathy you have shown me during these three years, which have been eventful years for me in many ways. I ask your leave to offer my respectful congratulations on the fact that you are about, in accordance with the unanimous recommendation of your Council, to elect in my place my valued friend, Mr. Rudler. His official connection with the Ethnological Society commenced in the year 1870, and from that time to the present his wise counsels, his active energies, his wide and deep resources of knowledge, have been freely given to the benefit of this Institute. In the year 1875 it was my good fortune to serve with him in the office of Director, in which office he succeeded me in the year 1881. He held it until 1890, when he became Vice-President. I hope and most entirely believe that increasing usefulness and prosperity will be the record of the Institute while he occupies the chair.

In respect to another office, also, a change takes place to-night. Mr. O. M. Dalton, whom we so confidently recommended to you two years ago, when Mr. Cuthbert Peek retired from the office of Secretary, has found that the increase in the weight of official duty incumbent upon him at the British Museum will prevent his continuing to give us his valuable services. It will be fresh in the recollection of all how well and successfully Mr. Dalton has carried out the arrangements for the

evening meetings during the last two years; and the excellent issues of our Journal under his editorship speak for themselves. Though he took office under the disadvantages of having only recently joined the Institute, and of following a Secretary so exceptionally equipped for the work as Mr. Peek, his ability and devotion have triumphed over all difficulties, and I am sure every member of the Council agrees with me in the expression of our deep gratitude to him for his services. This Institute has, indeed, never yet failed to find good men to carry on its work, and it is a great satisfaction to us that Mr. T. V. Holmes, who has served on the Council for eleven years, has kindly consented to accept the office of Secretary. I cannot refrain from adding that the Council has been fortunate during the past year in having the services as Assistant Secretary of a gentleman so well qualified for that office as Mr. J. Aplin Webster.

I now proceed to the usual review of the papers read before you during the year, the interest and variety of which confirm all I have said as to the excellent management of the meetings by Mr. Dalton.

Several of these papers belong to the department of Physical Anthropology; but as they are local in character, it will be convenient to consider them in connection with the continents to which they belong.

In the department of prehistoric archæology, we had a paper by our Treasurer Mr. Lewis, who deduced, from a careful analysis of the measurements of the ancient monuments at Stanton Drew and at Merivale near Dartmoor, a series of numerical relations depending upon various significant numbers, which correspond in a remarkable manner with similar relations derived from the measurement of the ruins of Zimbabwe in Mashonaland.

In the department of Sociology, Dr. Colley March contributed a comprehensive inquiry into the myths which have grown up round the idea of a special degree of wisdom possessed by birds, a conception, which he traced to the ancient

Egyptians, and which is the common traditional property of many different races, and may even be said to survive to our own time in certain forms of religious iconography. Mr. Holmes disposed in a conclusive manner of the evidence for the efficacy of the diviner and his rod in the search for water.

On the Ethnography of Europe we had numerous papers. To begin with our own country:—Mr. A. W. Moore and Dr. Beddoe investigated the physical anthropology of the Isle of Man, as disclosed by a record of the characteristics of 1,112 men enrolled in the regiment of Royal Manx Fencibles, between 1803 and 1810, and compared them with the evidence collected by Dr. Beddoe 80 years later, confirming his conclusion that the population of that island, both in the north and the south, is Scandio-Gaelic. Mr. Holmes drew our attention to a curious relic of border life in Scotland, in a box used more than half a century ago for the smuggling of whiskey, when that commodity was taxed more heavily in England than in Scotland. Dr. Beddoe favoured us with another communication of great suggestive value, in which he showed that differences of complexion were traceable in Ireland according as the subject bore an indigenous or an exotic surname—the index of nigrescence being much lower in those who bear surnames indicating a mixture of race than in those who bear the ancient Irish tribal names.

Our much esteemed colleague, Dr. Topinard, of Paris, was so obliging as to communicate through Dr. Garson, the novel impressions derived by him from an observation of the peoples of Brittany, on a recent fourth visit to that part. He pointed out that the anthropology of Brittany and that of Britain touch in two points—that the special characters of neolithic man and of the men of the Bronze Age respectively correspond in both; and that the historic race which settled in Wales and Cornwall emigrated in large numbers into Armorica. He found two general types in Brittany: A, of medium size, long square and flat features; B, short in stature, with relatively short and round facial aspect, becoming tri-

angular in the lower parts. The general proportions of A are a large head, rather short neck, rather large and square shoulders, a high trunk, moderately short strong and coarse members, large extremities; both in face and body not a beautiful type. B, on the contrary, has a small head, fine features, lively and expressive eyes, an agreeable and supple form and small extremities, and is a pleasing type. He distinguished also two special types of more rare occurrence: C, a tall, blonde population, known on the northern and western coasts as the English type, and D, which occurs among the Bigoudens of Pont l'Abbé, who resemble the people of Auvergne. He holds that type A is a combination of C and D, and compliments us by deriving its more unfavourable features from D:—while he traces type B to the autochthonous race of the neolithic or, as he puts it, *pour dire toute sa pensée*, of the palæolithic age—a suggestion which possesses the greatest possible interest for those among us who think that continuity is the key to many anthropological problems. For this reason, and also because of the weight which attaches to the communication as coming from Dr. Topinard, and the circumstance that it appears in our Journal in the original French, I have been tempted to refer to this paper at greater length than to others.

Two valuable contributions by Mr. Myres deal with copper and bronze in Cyprus and South East Europe; and with an early clay vessel from Amorgos, bearing a textile impression.

On the Ethnography of Asia we received from Miss Godden the completion of her most able monograph of the information we possess as to the Nágá and other frontier tribes of North India. We were also favoured by Sir George Robertson with a paper in the felicitous form of the narrative of the life history of one of the Kafirs on Kafiristan and its people, who inhabit that border country in the far North East of our dominion which is closely related to the present scene of hostilities there. Her Highness the Ranée of Sáráwak, Lady Brooke, supplied us with some effective photographs taken by herself repre-

senting the native races under her husband's rule, which were commented upon by Dr. Garson. At our last meeting Dr. Landis communicated a paper on the Capping ceremony of Corea.

On the Ethnography of Africa, Mr. W. B. Harris read a paper on the Berbers of Morocco, a people "who have held themselves aloof from Arab and European alike, and whose wild country has been visited so seldom that the explorers who have reached any portion of it can be counted on the fingers of one's hands." Mr. Seton-Karr recounted his discovery of the lost flint mines of Egypt in the eastern desert and his further discoveries of ancient Stone Implements in Somaliland, which now constitute an accumulation of evidence of the existence there of palæolithic man. Mr. H. C. Angus recorded his observations on the customs and superstitions of the people of Azimba and Chipitaland, during a year spent in travelling among them. Mr. Read and Mr. Dalton exhibited a marvellous collection of objects of art from Benin, since acquired for the British Museum. Mr. F. Shrubsall contributed a paper on the Crania of African bush races, in which he establishes the distinctions between the Bushmen proper, the Hottentots, and the surrounding black races, by a series of careful measurements of skulls existing in various collections in England.

In relation to the Ethnography of America, we held, on the courteous invitation of Mr. and Mrs. Maudslay, a meeting at South Kensington Museum, where we inspected the magnificent collection of casts of the Maya Monuments and inscriptions made by Mr. Maudslay in Central America, and received from him a most lucid explanation of their meaning. Miss Fletcher gave us a paper on the significance of the scalp-lock. Mr. Joseph Numa Rat, of St. Kitts, contributed a paper on the Carib language as now spoken in Dominica, in the West Indies.

On the Ethnography of Australasia, we have also had a number of valuable communications. Mr. R. H. Mathews described and illustrated the various forms of Bullroarers used

by the Australian aborigines and also contributed a further instalment of his description of their rock paintings and carvings. Mr. Duckworth, of Jesus College, Cambridge, contributed (through Professor Macalister) the measurements of three skulls of male aboriginal Australians, which deviate but little from the averages deduced from the larger collection of observations which we owed to the kindness of the same gentleman in 1894. The Rev. Dr. James Chalmers furnished two papers—one on the Toaripi or Motumotu tribe, situated in the Gulf of Papua in Freshwater Bay, on the coast of New Guinea; and the other a valuable collection of anthropometric observation on natives of that Gulf, belonging to four different tribes. At a recent meeting we admired and discussed a splendid exhibit of remains from Rarotonga, by Mr. Moss; Mr. J. S. Gardiner contributed a paper on Rotumah; and we have finally to acknowledge a most interesting communication by Graf v. Pfeil on Duk-duk and other customs as forms of expression of the Melanesian's intellectual life.

In the department of Linguistics, besides some papers already mentioned, we have been favoured with a collection of songs and specimens of the language of New Georgia, Solomon Islands, by Lieut. B. T. Somerville, R.N., to which Mr. Sidney H. Ray added an introductory notice of Melanesian and New Guinea songs. We have also published vocabularies of the Bugilai and Tagota dialects of British New Guinea contributed by Dr. James Chalmers, to which Mr. Ray has added a note on the Western Papuan dialects; and a series of aboriginal vocabularies of North-West Australia collected by Mr. E. B. Rigby, also annotated by Mr. Ray. These valuable communications appear in the *Anthropological Miscellanea* in our *Journal*, a department of our work which has been conducted by our Secretary, Mr. Dalton, in the most admirable manner.

I pass on to the record of our losses by death during the year. That of Sir Augustus Wollaston Franks, great as it is, I need not now refer to at length, the brief and inadequate observations which I made on it at the time having already

appeared in the Journal. I will merely place on record the facts that he joined the Ethnological Society in 1863, was elected a member of its Council in 1865, and became a Vice-President of this Institute in 1874. For a long time he regularly attended our meetings, took an active part in the proceedings, and made a great number of communications to our Journal. His primary allegiance was due, however, to the Society of Antiquaries, which he had joined on the 15th December, 1853, and in which for many years he played a most distinguished part. His first contribution to "*Archæologia*" was made on the very day he became a Fellow, under the title, "*Observations on an Ancient Fibula.*"

Sir A. W. Franks died at an advanced age after a long and brilliant career. In the death of Mr. J. Theodore Bent, the Institute has to deplore the early termination of a life of remarkable achievement and high promise. An intrepid explorer and a ripe scholar, Mr. Bent was also a man of singularly attractive and engaging character. His first communication to this Institute was in May, 1884, when he described the prehistoric remains of Antiparos and exhibited a large and interesting collection of antiquities brought by him from that island. In the next following year he read a paper on Insular Greek customs; and Mrs. Bent, his devoted wife and the comrade in his researches, exhibited and described a number of dresses and other objects from the Greek islands collected during three winters. In 1890 he read two papers, respectively on the Ansairee and the Yourouks, of Asia Minor. In 1892 he communicated to us his wonderful finds at the Great Zimbabwe ruins, and discussed them with a view to elucidating the origin of the race that built them. After that, he pursued his researches in the sacred city of the Ethiopians, and published a valuable work on that subject, as a sequel to his book on the "*Ruined Cities of Mashonaland.*" In 1895 he recounted to us his visits to the Hadramaut and Dhofar, the frankincense and myrrh countries of South Arabia, with a description of the Bedouins of both districts and their different characteristics. He may be said, indeed, to be

one of the martyrs of science, his death having resulted from malarial fever caught in Africa. Mrs. Bent was, at the time, herself suffering from the same cause. In answering the letter which I was desired by the Council to write, expressing our sorrow and sympathy and our hopes for her speedy recovery, she was so kind as to say that, when well enough, she would look through Mr. Bent's papers and her own memoranda, and communicate to this Institute anything she might find that would interest us. We are now looking forward to the early fulfilment of this gracious and kindly promise.

Mr. Charles Harrison, M.P., whose sudden illness and death after attending the funeral of Sir Frank Lockwood are so much to be regretted, joined our ranks in 1869. The interest he took in our pursuits was especially marked by his having published, at his own expense, a fine selection of photographs of ethnographical objects from the collections in the British Museum, some of which he occasionally exhibited before us.

The venerable Mr. James Heywood, F.R.S., formerly M.P., had belonged to our body ever since the year 1844. I am not able to trace any communication by him in our proceedings, but I recollect that he took an active part in the work of the Anthropometric Committee of the British Association, of which he was a member.

Rear-Admiral Tremlett, who had reached his eighty-second year, died on the 5th April. His naval career commenced in the year 1830, and was one of distinction. It had been his custom for many years to spend some weeks in Brittany, and he became an admitted authority on the rude stone monuments of that country. He was always pleased to supply enquirers with copies of books, plans, and illustrations relating to them. On several occasions he read papers on that subject to this Institute, and he was a contributor to various archæological publications.

The recent announcement of the death of Dr. Charles Carter Blake carries our memory back to the early days of the Anthropological Society, of which he and our colleague, Mr. J. F.

Collingwood, were the first Honorary Secretaries. He was a pupil and assistant of Sir Richard Owen, who had a high opinion of his qualifications, and contributed a Preface to his "Zoology for Students." His accomplishments as a craniologist and his skill as a debater are testified by many entries in our early records, and it is a regret to us all that the great promise he held forth of a distinguished career should have been clouded over by illness and misfortune in his later days.

Foremost among the matters that have occupied our attention during the year has been the question, to which I referred in my last address—of the establishment of an ethnographic bureau. At the annual meeting you resolved, on the motion of Mr. Gomme, that the Council take steps during the year to find the best means of forming such a bureau and obtaining for it the support of Government. The Council, in compliance with this resolution, appointed a Committee for the purpose; and that Committee had the satisfaction of finding that the British Association was already moving in the matter. The Council has kept in touch with the proceedings of that Association in this business, through the kind offices of Sir John Evans as intermediary, who is not only a past President of this Institute, but the actual President of the Association and one of the Trustees of the British Museum. We have every reason to hope that the Trustees of the British Museum will not be unwilling to accept the function of administrators of the bureau, and will urge upon the Government the propriety of making suitable provision for its establishment and maintenance. The Council of this Institute will not fail to do all that can be done to promote the successful issue of these negotiations.

As this Institute is much concerned in the position held by Anthropology in the general meetings and at the Council board of the British Association, I may be permitted to allude to the proceedings of the pleasant and memorable meeting held at Toronto in August, where Anthropology, especially in that branch of it which deals with Archæology, was honoured

in the person of the President, Sir John Evans. As he most truly said, his "principal efforts have now for many years been directed towards attempting to forge those links in the history of the world, and especially of humanity, that connect the past with the present, and towards tracing that course of evolution which plays as important a part in the physical and moral development of man as it does in that of the animal and vegetable creation." In his address he brought under review the state of our present knowledge with regard to the antiquity of man, and remarked, "Is not this a case in which the imagination may be fairly invoked in aid of Science? May we not picture to ourselves our earliest ancestors in Eastern Asia, in a tropical climate, with the means of subsistence ready at hand, gradually developing from a lowly origin, acquiring a taste for hunting, if not indeed being driven to protect themselves from the beasts around them, and evolving the more complicated forms of tools or weapons from the simpler flakes that had previously served them as knives? If, when the stage of civilization denoted by these Palæolithic implements had been reached, game should become scarcer, and the hunter's life assume a more nomad character, may not a series of migrations naturally have ensued which, following the usual course of 'westward towards the setting sun' might eventually lead to a Palæolithic population finding its way to the extreme borders of Western Europe?"

A pleasant incident in the voyage of the "Parisian" steamer, which carried many of the party to Canada, was the collection by Professor A. Macalister of anthropometric observations on the passengers. As measurements of a special group of individuals, these should be interesting, and I hope will be communicated to us at an early meeting.

The Anthropological Section was presided over by Sir William Turner, whose address, by way of distinction from those discourses in which the links uniting man to the lower animals have been dwelt upon, emphasised the specially human characters of mankind. The section was favoured by the

presence of many anthropologists from Canada and the United States, among whom Dr. Dawson of Toronto, and Professors McGee of Washington and Putnam of New York, took an active part as sectional Vice-Presidents. Miss Alice Fletcher, President of the Anthropological Section of the American Association, also attended the meeting and read several papers derived from her personal observation of the beliefs and practices of the Omaha and other Indian tribes. A distinctively Americanist tone was given to the proceedings of the section, which were terminated by a spirited discussion of the question of the Trenton implements and other finds in America alleged to be palæolithic.

The report of the Ethnographic Survey Committee, upon which this Institute is directly represented, contains the completion of the typical collection of seven hundred and thirty-three observations of Scottish folk-lore made by the lamented Dr. Walter Gregor, and an abstract of the physical measurements taken by him. The Cambridge sub-committee reports the progress made in its survey of East Angliá; and other collections of anthropometric measurements are furnished from Cleckheaton in Yorkshire, Aberdeen, Banffshire, and the Island of Lewis. The sub-committee for Ireland is also proceeding with the work, the results of which are published by the Royal Irish Academy. An important Committee has been appointed for the Ethnographic survey of the Dominion of Canada, with which Mr. Hartland, Professor Haddon and I have been requested to co-operate as British members. The Chairman of that Committee is Dr. G. Dawson, now an honorary Fellow of this Institute.

We all most heartily wish good speed and great success to Professor Haddon in his expedition to Papua in the interests of geographical, anthropological, and zoological science. I understand that he hopes before he leaves England, which will be in a few weeks' time, to be able to issue a book on the study of man, with especial reference to practical ethnographic work—a publication to which we shall look forward with great

interest, and which I have no doubt we shall find exceedingly useful.

Before leaving this subject, you will perhaps permit me to add that, as the Council of the British Association has paid the Institute and myself the compliment of nominating me to preside over Section H at Bristol, I shall hope to be supported by your presence there and by the contribution of papers from as many Fellows of the Institute as possible. I have also had the honour to be appointed by the Bibliothèque Nationale of France one of the jury to advise on the quadrennial competition for the Angrand prize of 5,000 fr.

I mentioned just now the election of Dr. Dawson of Canada as one of our honorary Fellows. We have likewise added to that distinguished list the names of Professor Sergi of Rome and Señor Troncoso of Mexico.

We have taken part in the proceedings for establishing an International Catalogue of Scientific Literature. Mr. Francis Galton has prepared for the Committee of the Royal Society which is engaged upon that work, a syllabus of Anthropology, which is appended to this address, and two representatives of the Institute (one of them Professor E. B. Tylor) form part of the National Committee for consulting with the Royal Society Committee as to the method of organising the Catalogue in this country upon the scheme they are elaborating. This important undertaking involves the cataloguing of all scientific literature upon a uniform system in all parts of the world, and is one which this Institute will watch with great interest and do all that may be in its power to promote.

The occurrence in a recent number of the "*Archæological Journal*" of a paper on Some Social Coptic Customs, by Marcus Simaika Bey, a gentleman belonging to one of the old conservative Coptic families, who writes from personal familiarity with customs, some of which can be traced to remote periods of ancient Egyptian history, leads to the observation that the proceedings of Societies dealing with various phases of Anthropology frequently overlap. Though this paper would have

been equally appropriate to our own meetings or to those of the Folk Lore Society, I do not grudge to so eminent and learned a Society as the Royal Archæological Institute an occasional excursion into ancient Sociology; but I confess that I continue to regret the dissipation of energy caused by the continuance apart of two bodies which have so much in common as the Folk Lore Society and this Institute. My well-meant endeavour, a few years ago, to bring them together failed very signally. I am not without hope, however, in the interests of science and of economy, that it may some day be renewed by more capable hands, and with better prospects of success.

I must not pass without notice some recently-published contributions to anthropological literature. We have to congratulate Sir John Evans on the completion of a new edition of his classical work on "Ancient Stone Implements." The new material it contains, derived from the more recent discoveries, is discussed with the caution and reserve, which we know to be characteristic of our distinguished colleague, and which we recognise as ground for absolute confidence in him when he formulates a definite conclusion. The work in its revised form will remain, as it always has been, the principal authority on the subject with which it deals.

Miss Mary H. Kingsley's delightful work describing her Travels in West Africa is full of anthropological information. I may briefly summarize her description of the Bubis of Fernando Po. Unlike natives of other parts, they go ostentatiously unclothed, but wear a plaster of tola pomatum over the body, and a hat of plaited palm leaf, much adorned with birds' plumes, stick a piece of wood through the lobe of the ear, and hang a string of jujus round the neck. They also wear armlets and leglets of twisted grass, and girdles made of pieces of shell, which form their currency. Their houses are of two classes—houses of assembly and private living houses—the latter very small. They hunt chiefly with traps. They cultivate yams, koko, and plantains. They are physically a well-formed race, and their language is of a Bantu stock. They

make stone implements and use wooden spears. Their pottery is very rude, but their basket work is good. They use a peculiar form of musical instrument, made like a bow, with a tense string of fibre. One end of the bow is placed against the mouth, and the string struck with a stick and scraped with a shell.

I have not yet had the opportunity of reading the recently-published work of Mr. Grant Allen on the "Evolution of the Idea of God," and I am not therefore prepared to offer an opinion either on the method of the author's research or the nature of the conclusions at which he arrives; but I mention it in this connection because it appears to me to deal with a subject that is eminently one for anthropological enquiry. All our notions of the Divine Being are so essentially anthropomorphic—so necessarily derived from our own consciousness and limited by the limitation of our faculties—that the origin and development of the idea is a legitimate and fruitful subject for scientific investigation. That such a subject ought to be treated in a reverent spirit, and in such a manner as to avoid giving offence or shocking those feelings and sentiments which are esteemed to be precious by the great majority of mankind, goes without saying. I am much inclined to believe that the religious sentiment is as essential and natural a part of the constitution of man as any physical or mental character that he possesses—that it has been implanted in him by the Creator in the same manner, and passed through the same processes of evolutionary development. In this respect, as in every other, the order of the universe is expressed in continuity and not in cataclysm.

In the present day every scientific society must be deeply interested in the popularising, or, as our French friends say, the *vulgarisation* of its pursuits. From this point of view I would call attention to a most attractive volume by our member the Rev. T. J. Hutchinson, on "Marriage Customs," which cannot fail to interest its readers in some problems of comparative sociology. I may also mention that in connection with the Society for the Extension of University Teaching, Mr.

E. A. Parkyn is delivering a course of ten lectures on the Natural History of Man.

An admirable series of lectures on the Racial Geography of Europe, delivered by Professor William Z. Ripley, of the Massachusetts Institute of Technology, is being published, with ample illustrations, in "Appleton's Popular Science Monthly." The eleventh lecture of the Series relates to the British Isles. In preparing it, Professor Ripley has made excellent use of the collections made by the Photograph sub-Committee of the Anthropometric Committee of the British Association, which, by the courtesy of that Association, were entrusted to this Institute for safe custody and for the purposes of study when that Committee had completed its labours. It gave me great pleasure to move the Council that these photographs should be placed for that purpose at the disposal of Professor Ripley; they most cordially assented to the request, and the result has amply justified them in doing so.

If, upon this summary of the year, I take upon myself to assert that the Science of Anthropology and the Anthropological Institute are living, are useful, and are progressive, I shall not fear contradiction, for the facts are all in my favour. I may perhaps be permitted, however, in this my swan-song, to conclude with some observations on the unsolved problems which yet remain and the work which still lies before us.

I submit, as postulates, the unity of the anthropological sciences, on which I dwelt in my first address, and the doctrine of continuity, to which I referred in my second address. Much indeed remains to be done before the consequences of these are worked out.

The innumerable links in the chain of existence which mark the successive stages of development consequent on the acquisition of the erect posture, indicated in the masterly writings of Dr. Munro—the true history of the apparent break between the palæolithic and neolithic periods—the philosophy of the disappearance of races—and a hundred other problems relating to physical anthropology—are still unsolved,

The origin and development of modes of thought, especially in relation to matters of religion and of superstition—in which Mr. Herbert Spencer, Professor Tylor, and Sir John Lubbock have so worthily led the way—are a field for endless speculation and investigation.

Finally, the actual observation of man as he exists by means of that essential part of science which consists in measurement, combined with the accurate record of his passing mental phases, may well be pushed forward with greater assiduity and perseverance. We study a noble science. Rightly pursued, it may affect the mind of man more beneficially than possibly any other. It may teach the student to look back to the hole of the pit whence he was digged:—to look forward to a future that he may contribute to make better and brighter:—to look around upon all nature as akin to him, and upon the various races of mankind in the light of the duty that he owes to them:—to look upward to that Creator who first implanted in all nature the faculties that have made man what he now is, and may make those who are to come after even more capable of being useful and being happy.

APPENDIX.

Royal Society of London.—International Catalogue Committee.

ANTHROPOLOGY.

A. General Works.

B. Museums and Collections.

1. Catalogues, guides, and descriptions.
2. Methods of preserving and arranging anthropological specimens.

C. Archæology.

1. General works.
2. Antiquity of man, place of origin.
3. Prehistoric remains, descriptive, comparative, topographical.
4. Contemporary fauna and flora.

5. Prehistoric dwellings, buildings, and graves.
6. Occupations and industries of prehistoric man

D. Anthropometry.

1. Instruments and methods.
2. Craniology, osteology.
3. External features (form, colour, hair, teeth, &c.).
4. Human faculties, physical powers.
5. Criminal anthropology.
6. Monstrosities and abnormalities.
7. Human statistics.

E. Races.

1. General works.
2. Classification by name and language.
3. Racial peculiarities (physique, fertility, pathology, &c.).

F. Industrial Occupations and Appliances.

1. General works.
2. Dwellings, buildings, furniture.
3. Food, drink, narcotics, &c., cookery.
4. Domestic animals, pastoral life.
5. Agriculture.
6. Clothing.
7. Spinning, weaving, sewing, basketry.
8. Fire-making, illuminants.
9. Ceramics, glass-making.
10. Stone-working.
11. Metallurgy.
12. Carpentry, mechanics.
13. Fishing.
14. War, hunting.
15. Navigation.
16. Land transit and transport.
17. Trade, commerce, barter, currency.

G. Arts of Pleasure.

1. General works.
2. Music, vocal and instrumental.

3. Poetry, recitation, folk-tales.
4. Dances and drama.
5. Plastic and graphic arts.
6. Personal adornment (ornaments, painting, tattooing, artificial deformation).
7. Games.

II. Communication of Ideas.

1. Speech, language, grammar.
2. Gesture language, signals.
3. Symbolic messages and records, pictographs, writing, maps.

I. Science (chiefly of primitive races).

1. General works.
2. Counting and arithmetic.
3. Mensuration.
4. Astronomy, geography.
5. Medicine, surgery, hygiene.
6. Other sciences.
7. History.

J. Superstition, Religion, Customs.

1. General works.
2. Creeds, mythology, folk-lore.
3. Priesthood, rain doctors, &c.
4. Witchcraft, charms, magic.
5. Ceremonies at birth, puberty, marriage, death, and burial.
6. Other seasonal ceremonies (seed time, harvest, &c.).
7. Cannibalism.

K. Administration.

1. Governing powers.
2. Crimes and punishments
3. Oaths, ordeals.
4. Property, inheritance, contracts.
5. Marriage restrictions.

L. Sociology (chiefly of primitive races).

1. General works.
2. Relation of the sexes.
3. The family and clan, distinctions of caste and rank.
4. Slavery.
5. Societies and clubs.
6. Morality, ethics.

Specimen of proposed Index (but it should contain many more words than these). Names of races and languages are sub-headings to E 2, and are to be indexed apart.

Æsthetics	G.	Antiquity of Man	C 2.
Agriculture	F 5.	ARCHÆOLOGY	C.
Alphabet	H 1.	Architecture	F 2.
Amulet	J 4.	Arithmetic	I 2.
Amusements	G, G 7.	ARTS, industrial	F.
Animals, domestic	F 4.	of pleasure	G.
Animism	J 2.	Astrology	I 4.
ANTHROPOMETRY	D.	Astronomy	I 4.

It was moved by Mr. A. P. MAUDSLAY, seconded by Mr. A. J. EVANS, and unanimously resolved:—

“That the thanks of the Meeting be given to the President for his address, and that it be printed in the *Journal* of the Institute.”

The SCRUTINEERS gave in their Report, and the following gentlemen were declared to be duly elected to serve as Officers and Council for the year 1898.

President.—F. W. Rudler, Esq., F.G.S.

Vice-Presidents.—H. Balfour, Esq., M.A.; John Beddoe, Esq., M.D., F.R.S.; E. W. Brabrook, Esq., C.B., F.S.A.; Sir John Evans, K.C.B., D.C.L., F.R.S.; Sir W. H. Flower, K.C.B., LL.D., F.R.S.; Francis Galton, Esq., D.C.L., F.R.S.; Rt. Hon. Sir John Lubbock, Bart., F.R.S.; Prof. A. Macalister, M.D., F.R.S.; A. P. Maudslay, Esq., F.R.G.S.; Cuthbert Peek, Esq., M.A., F.S.A.; Lieut.-General Pitt Rivers, D.C.L., F.R.S.; Prof. Edward B. Tylor, D.C.L., F.R.S.

Secretary.—T. V. Holmes, Esq., F.G.S.

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Assistant Secretary.—J. Aplin Webster, Esq.

A vote of thanks to the retiring President, Vice-President, and Councillors, as well as to the Secretary, the Treasurer, the Auditors and the Scrutineers, was moved, seconded, and carried by acclamation.

ANTHROPOLOGICAL MISCELLANEA AND NEW BOOKS.

Readers of the Journal are invited to communicate any new facts of especial interest which come under their notice. Short abstracts of, or extracts from letters, will be published at the discretion of the Editor. Letters should be marked "Miscellanea" and addressed to The Secretary, 3, Hanover Square, W.

"Religions of Primitive Peoples." By Daniel G. Brinton, LL.D. (American Lectures on the History of Religions. 2nd Series. New York, 1897. 254 pp., 8vo.)

This book embodies the substance of six lectures delivered by Dr. Brinton in Boston, New York, Philadelphia, and other cities during 1896-97. The lectures are placed under the following headings: "The Scientific Study of Primitive Religions: Methods and Definitions"; "The Origin and Contents of Primitive Religions"; "Primitive Religious Expression in the Word"; "Primitive Religious Expression in the Object"; "Primitive Religious Expression in the Rite"; "The Lines of Development of Primitive Religions." The enumeration of the titles will indicate the extent of the ground which Dr. Brinton covers; and the reputation of the writer for original research in this and other studies connected with the early history of man is of itself sufficient guarantee for the interesting and suggestive nature of the book. Dr. Brinton finds that the universal postulate, the psychic origin of all religious thought, is the recognition "that conscious volition is the ultimate source of all force"; and that, whether we consider the highest religions, or the earliest and most primitive cults, the foundation of belief lies in the unalterable faith in mind, in the supersensuous, as the ultimate source of all being. Not less important than this primary faith is the belief in its corollary, that with this mind or conscious intelligence man is in continual communication.

Some of Dr. Brinton's most interesting pages are devoted to the fact that the inspiration of the savage seer is based upon the suppression of the reason and the superseding of the consciousness of everyday life by a state of sub-consciousness, in which the seer is but dimly aware of his utterances. During this sub-conscious

state the divine influence is supposed to obtain freer access; and what is in reality the expression of submerged ideas not hitherto focussed by attention is obeyed by those who hear it as the very accent of the god himself. The ascetic practices to which most medicine-men resort have for their object this very abdication of reason, which, in view of the nervous and emotional condition to which the seer is reduced, can generally be produced without very great difficulty. "Man owes less to his consciousness than his sub-conscious intelligence, and of this religion has been the chief interpreter." Dr. Brinton has treated the various parts of his wide subject in a lucid and attractive manner, and all the lectures are eminently readable. The volume is furnished with an index of authorities and an index of subjects.

"*The American Antiquarian*," in Nos. V and VI of vol. xix, contains:—"The Palæolithic Age," extracts from the Address of Sir John Evans, D.C.L.; "A Relic of De Soto's Expedition—found in Alabama," by H. S. Halbert; "The Symbol of the Hand," by Lewis W. Gunckel; "The Geography of the Tsimshian Indians," by G. A. Dorsey; "The Age of the World and the Age of Man"; "Totems Inscribed upon Papuan Skulls" (illustrated), by G. A. Dorsey and William H. Holmes; "The Bone Age in Europe and America," by Stephen D. Peet; "Table of Manners of Ancient People"; "The Religion of China and Mexico," compared (illustrated), by James Wickersham; "Borings in Coral Formations," by John Fraser, LL.D.

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